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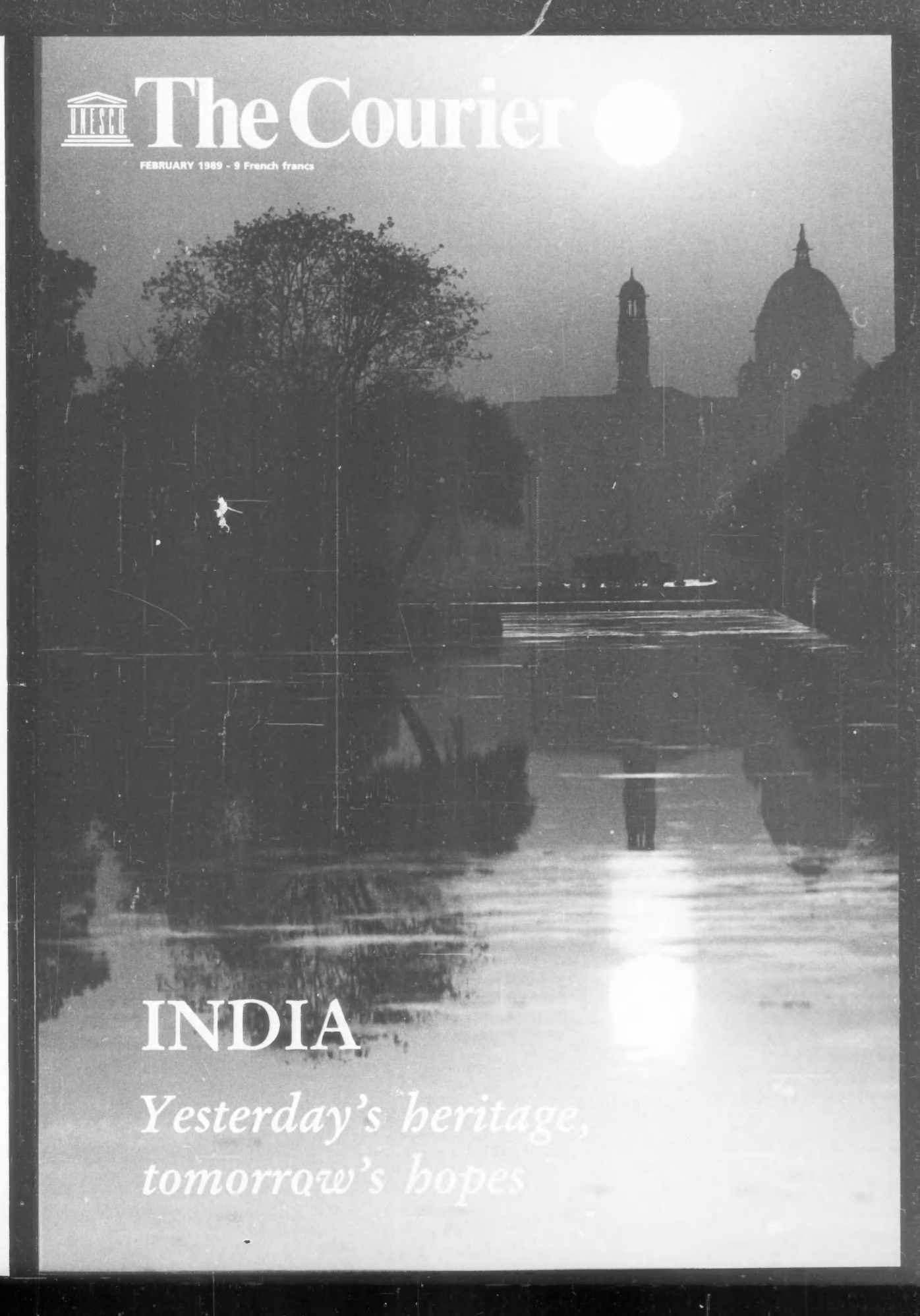
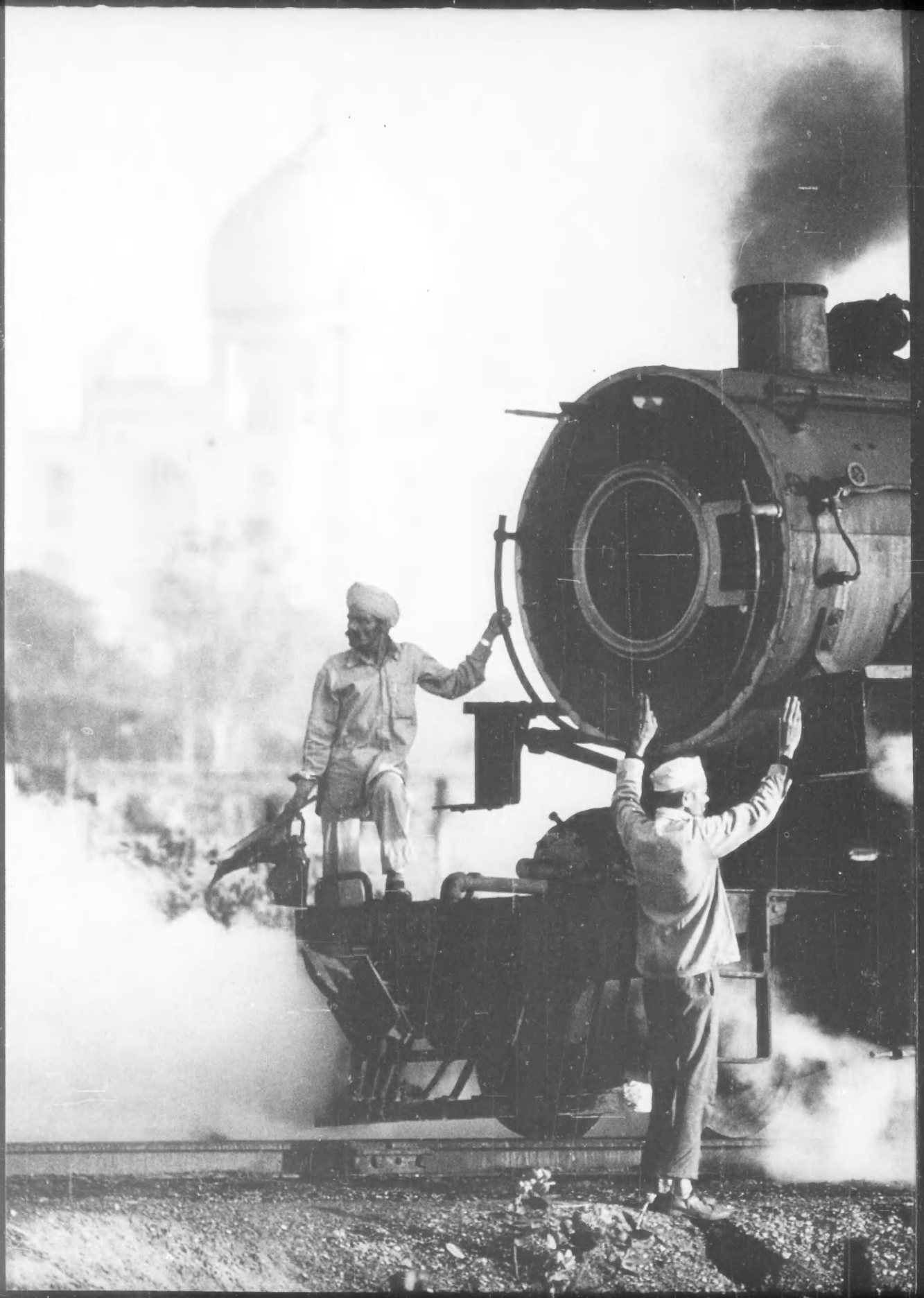


INDIA

Yesterday's heritage, tomorrow's hopes



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◀ The Taj Mahal at Agra (see caption page 8).

Cover: New Delhi, federal capital of India. In background, the Rashtrapati Bhavan (President's House).

Back cover: this majestic standing Buddha was produced in the 5th century AD at Mathura (in present-day Uttar Pradesh). It is an outstanding example of the art of the Gupta period (c. 320-540), which has often been called the Classical Age of India.

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editorial

Two months ago the Unesco Courier devoted a special issue to Australia, a young nation celebrating its bicentennial. This issue is given over to a country which is heir to one of the world's oldest civilizations.

The second most populous nation on Earth, India is a vast and multifarious land which encompasses desert and fertile soil, the towering Himalayas and tropical lowlands, mighty rivers, great cities and villages without number. Over 800 million people—perhaps one sixth of humanity—speak some 180 languages including 14 major ones.

For many readers India will evoke images of ancient customs and omnipresent religions: Hindus bathing en masse in a sacred river, ascetic holy men praying by the roadside, caparisoned elephants joining in temple festivals, villages where the gods are worshipped as familiars. But side by side with these timeless scenes a modern India is growing. Industrialization has made great strides in a country which today manufactures her own cars and has her own steel mills, fertilizer plants, atomic power stations and heavy engineering industry. To sustain her economic development she has one of the world's largest networks of scientists and technicians. Yet today, like many nations, India faces difficult problems, especially perhaps the risk that the benefits from her considerable economic achievements in industry and food production will be spread more and more thinly because of demographic growth—the population is estimated to have increased by 18 million in 1986 alone.

In the four decades since Independence India has made unsparing efforts to improve living standards and become a modern democratic nation while preserving her linguistic, cultural and ethnic wealth and diversity. Within the limited editorial space at our disposal, this issue attempts to reflect the many facets of this situation and bring to readers a glimpse of what is happening in this vast and dynamic subcontinent.

The Editors of the *Unesco Courier* wish to thank the Indian writer and journalist Vaiju Mahindroo for her help in the preparation of this issue.

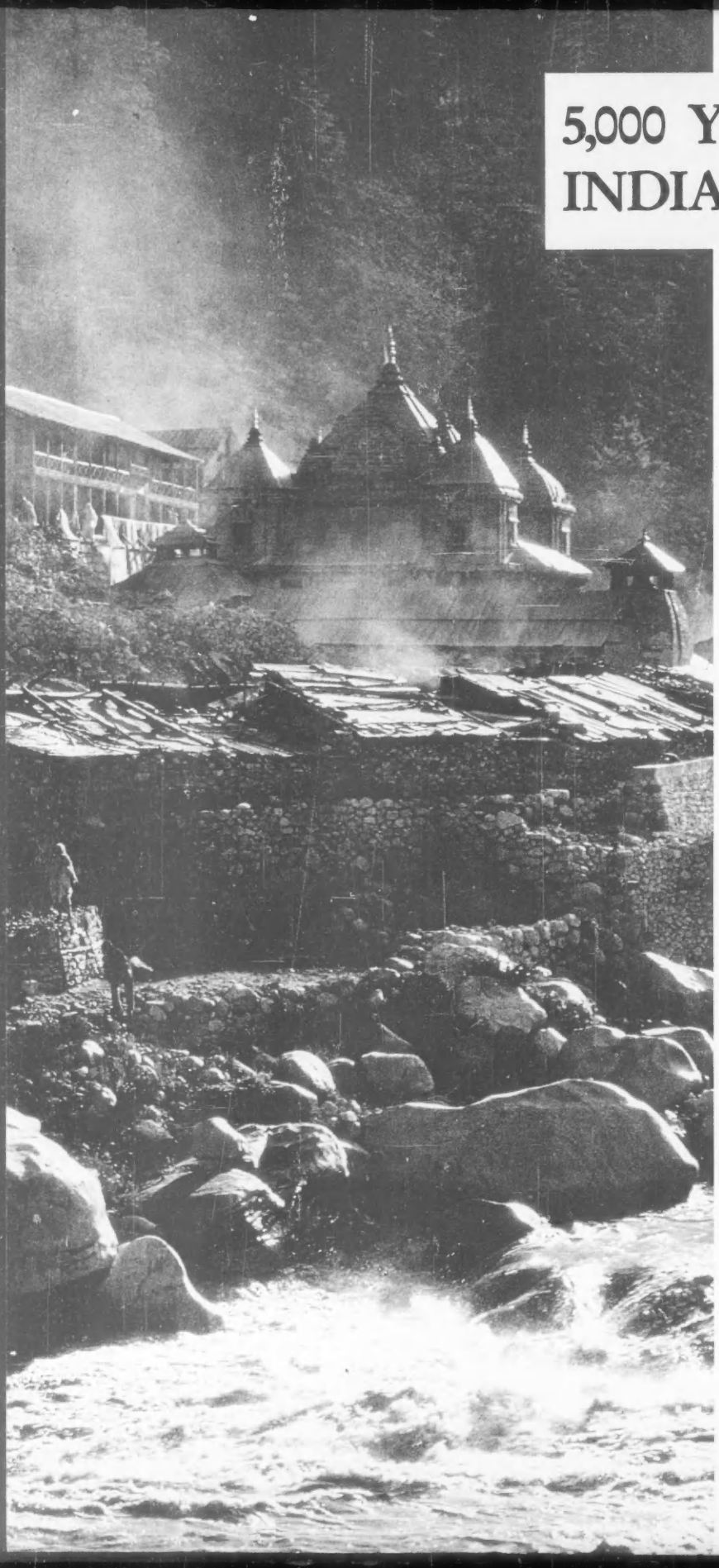
5,000 YEARS OF INDIAN CULTURE

BY VISHWANATH S. NARAVANE

THE development of Indian culture can be compared to the progress of a river from its Himalayan home, through forests and wastelands, orchards and farms, villages and cities. The river assimilates the waters of many tributaries, its environment changes, yet it remains the same. Indian culture shows a similar combination of unity and diversity, continuity and change. In the course of her long history, India has witnessed many changes, made many adjustments, and assimilated elements from many sources, without breaking the continuity.

India is a land of varied landscapes and climates, of many races, religions, languages and cultures. But they all have an unmistakably Indian flavour. The source of this unity is elusive. It can be felt, but it defies analysis. In his famous book, *Discovery of India,* Jawaharlal Nehru gave a sensitive and fascinating account of his search for the unity at the root of India's amazing diversity.

The Indus Valley civilization (3000-1800 BC) shows anticipations of ideas and art-forms later regarded as typically Indian. This is clear from the artefacts yielded during excavations at Harappa and Mohenjodaro. A statue of a man in meditation suggests the practice of Yoga. The smooth surfaces of a male torso in stone suggests, by its absence of muscular tension, the classical Indian concept of inward energy. A deity depicted on a clay seal is very similar to some later images of Shiva. And a little copper dancing-girl wears bangles of a kind that can be purchased today at a wayside bazaar in India. Recent research has shown that the influence of this culture



The temple of Gangotri, near the source of the Ganges in the Himalayas, is an important Hindu centre of pilgrimage.

extended to distant regions of northern and western India, and that the Indus Valley people had close contacts with the Dravidian civilization which flourished in southern India long before the coming of the Aryans.

Some time between 2000 and 1600 BC, a branch of the vast Aryan family, usually referred to as Indo-Aryans, migrated to India. They brought with them the Sanskrit language, and a religion based on sacrificial ritual honouring deities symbolizing elemental forces of Nature, such as Indra, god of rain and thunder, Agni (Fire) and Varuna, lord of the seas, rivers and seasons. Hymns addressed to these and other deities were collected in the four Vedas. The oldest of the Vedas is the *Rigveda* (1500-1200 BC) in which there is a quest for the Supreme Reality underlying all multiplicity. This trend was strengthened in the dialogues of the Upanishads (900-600 BC). Vedic poetry is marked by lofty ideas, literary beauty and a movement from external ritual to inward experience.

Two religions outside the Vedic tradition emerged in the sixth century BC. The Buddha's personality, and his emphasis on love, compassion and harmony, profoundly influenced Indian thought and culture, though Buddhism as an organized religion struck deeper roots outside India. Jainism, founded by Mahavira, stressed truth and non-violence, and made significant contributions to Indian art and philosophy.

In 326 BC, Alexander of Macedon crossed the Indus and won a decisive battle. Although he soon turned back, his invasion influenced Indian culture by initiating contacts with the Graeco-Roman world. Six years later, Chandragupta Maurya tried to unite the scattered kingdoms and republics of India in a centralized empire, with the capital at Pataliputra (modern Patna in Bihar). His grandson, Ashoka (reigned 273-237 BC), recoiling from the horrors of war, became an ardent Buddhist. The message of compassion and gentleness was inscribed on rocks and highly polished stone columns. The capitals surmounting the columns are fine pieces of sculpture.

Kings of the Shunga dynasty (185-149 BC) were orthodox Hindus, but there was a strong Buddhist revival under Kanishka, the Kushan king who ruled in north-western India (78-101 AD). The Gandhara style of Buddhist sculpture,

Seal of the Indus Valley civilization, also known as the Harappa culture (c. 2300 BC). The inscriptions remain undeciphered.

strongly influenced by Graeco-Roman art, developed under the Kushans. Another centre of Buddhist art was Mathura (south of Delhi).

Pataliputra again became the centre of political and cultural activity during the Gupta Empire (319-540 AD), which has been described as the golden age of ancient Indian culture. Some of the Gupta kings, such as Chandragupta and Skandagupta, were poets and musicians. Kalidasa, greatest among Sanskrit poets and dramatists, lived during the reign of Chandragupta. The Buddha images of Sarnath, and the frescoes painted in the caves of Ajanta in western India, are among the artistic masterpieces of this age. The decline of the Gupta Empire was followed by political fragmentation. King Harsha of Kannauj tried to stem this process, but after his death in 648 AD independent kingdoms arose in Kashmir, Bengal, Orissa and many other regions of southern as well as northern India.

Culturally, this was a very rich period. The Cholas, Pallavas and Rashtrakutas of south India built the superb temples at Tanjore, Mamallapuram and Ellora. The Sun Temple of Konarak in Orissa and the Shiva Temple at Khajuraho in Central India were built in the eleventh century. In all these temples, sculpture is an integral part of the architecture. In literature, Sanskrit was gradually being replaced by regional languages such as Bengali, Marathi, Hindi and Punjabi. In the south, Tamil, Telugu and Kannada had developed their literary traditions. The Vedanta philosophies of Shankara (eighth century) and Ramanuja (twelfth century) exerted a deep influence. There

Bronze statuette of a dancing girl from Mohenjodaro (c. 2500 BC)

was, however, a conservative trend in social and religious life. The caste system, originally based on differences of aptitude, became rigid and oppressive.

The establishment of Muslim rule at the end of the twelfth century was a turning point in India's cultural history. An initial period of conflict was inevitable because of the radical differences between Hinduism and Islam. But a process of accommodation soon started. Sufi mysticism, philosophically close to Vedanta, was one of the meeting points. Many Muslim kings, at Delhi and in regional kingdoms, were patrons of Indian literature and music, and participated in Hindu festivals. After the foundation of the Mughal Empire (1526 AD) the trend towards integration was strengthened. Under the wise and tolerant rule of Akbar (1556-1605) the foundation of a national culture was firmly laid. The Hindu and Muslim traditions, while retaining their distinct identities, influenced each other deeply.

Islamic architecture in India was at first austere and simple. But the builders soon started adopting decorative elements, including the lotus motif, from Hindu temples. Conversely, many temples built in medieval India have Islamic features, such as the dome, the arch and screens carved of stone and marble. Indian architecture reached its apex during the reign of Shah Jahan (1627-1658), who built such masterpieces as the Pearl Mosque at Agra and the Taj Mahal, "the dream in marble".

Greek presence in India led to the development of the famous Gandhara school of art. This Gandhara head dates back to the Kushan period between AD 78 and 144.

In painting, too, there was a blend of the two traditions. Inspired by Bihzad and other great Persian artists, painters at the Mughal court created a new style of miniature painting. Combining the technique and subtlety of this style with the religious and aesthetic spirit of India, painters of the Rajput School made their own distinctive contribution.

One of the greatest geniuses of medieval India was Amir Khusrau: poet, musician, linguist. He invented several instruments played in classical Indian music. His poetical experiments led to the emergence of Urdu, one of the major Indian languages. The sixteenth and seventeenth centuries were exceptionally rich in devotional poetry in regional languages. Nanak, the founder of Sikhism, Tulsidas, whose Hindi version of the *Ramayana* epic is recited and read by millions even today, Kabir, whose poetry transcended all sectarian differences—these and other saint-poets preached a universal religion based on tolerance and love.

The Mughal Empire declined rapidly during the first quarter of the eighteenth century. Meanwhile, Europeans were making inroads into India: the Portuguese, the Dutch, the French, and finally the British who emerged victorious. By the end of the eighteenth century, British authority was firmly established. The introduction of English education and the work of Christian missionaries had a deep impact on the cultural and religious life of India. Calcutta, the new capital, became the centre of Western thought, followed by Bombay and Madras. Some educated Indians, in their excessive zeal for European culture, turned away from their own heritage. But a reform movement, founded by Raja Ram Mohan Roy,

A *torana* or ceremonial gateway of the great Buddhist stupa at Sanchi in Madhya Pradesh state.

ushered in a spiritual and cultural renaissance. The leaders of this movement, known as the Brahmo Samaj, stressed the deeper truths of Hindu and Muslim scriptures, while accepting progressive elements from Western thought. Another source of inspiration was Shri Ramakrishna (1836-1886), who regarded different religions as paths leading to the same goal, and his famous disciple, Swami Vivekananda (1863-1902), who is remembered as India's first spiritual and cultural ambassador to Europe and America.

Though politically subjugated, Indian culture retained its dynamism. In the latter half of the nineteenth century, political, historical and social themes were taken up by novelists and dramatists. Ghalib, the great Urdu poet, and Bankim Chatterji, the Bengali novelist, made rich contributions to Indian literature. Outstanding musicians, many of whom were Muslims, kept alive the tradition of classical Indian music. The *kathak* school of dance was developed at Lucknow and Jaipur. Later, there was a renaissance in Indian painting, initiated by Abaanindranath Tagore and other artists of the Bengal School. Plays based on mythological as well as modern subjects were staged at Calcutta and Bombay.

Group of monolithic temples at Mamallapuram, Tamil Nadu. They were hewn out of the rock in the 7th century A.D.

Meanwhile, under the leadership of the Indian National Congress (founded in 1885) the movement for independence was gaining strength. The sense of patriotism thus aroused was reflected in the literature of that age. When Mahatma Gandhi returned to India, after his heroic struggle against racism in South Africa, a new chapter was opened in India's life.

Detail from a twice-lifesize sculpture from the Sun Temple of Konarak in Orissa, built in the 13th century by King Narasimha Deva.

Dancing Shiva *Nataraja* from Kuram. Pallava dynasty, 9th century.

The Mahatma touched every aspect of Indian life, though his main concern was with social and political issues. Some of the greatest writers of that period—Bharati in Tamil, Premchand in Hindi, Sharat Chatterji in Bengali—expressed Gandhian ideals in their poems and novels.

Indian culture in the twentieth century was dominated by the towering genius of Rabindranath Tagore, one of the greatest poet-philosophers in world history. Tagore left the stamp of his personality and work on every field of creativity: poetry, music, drama, novel and short story, even painting. He was the first non-Western writer to be awarded the Nobel Prize for Literature. He founded the international university, Vishwa-Bharati, and anticipated many modern concepts in education. An entire generation of Indian writers and artists was influenced by Tagore. Gandhi and Tagore are rightly regarded as the makers of modern India.

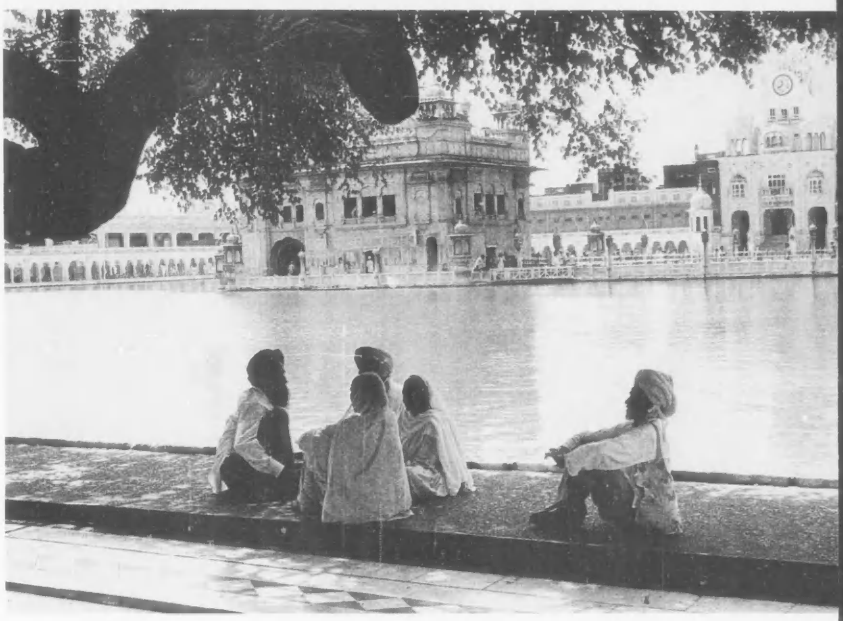
Eighteenth-century miniature shows Akbar, the greatest of the Mughal dynasty of emperors who ruled India between 1526 and 1761, presenting a pearl necklace to his son Salim. Akbar came to the throne in 1556 at the age of 13 and ruled for 50 years, extending the empire from Kabul in the west to Bengal in the east.

Miniature showing the emperor Shah Jahan and his wife Mumtaz Mahal in whose memory he built the Taj Mahal, begun in 1632, a year after her death, and completed in 1647.

On 15 August 1947, India became an independent nation. Thus, in Jawaharlal Nehru's words, India had "kept her tryst with destiny" after a century of struggle. The partition of the country on the basis of religion, the bloodshed that followed, and then the assassination of Mahatma Gandhi, were painful shocks. But the trauma was soon overcome and India began building her future as a sovereign country taking her rightful place in the community of nations.

Since independence, India has made significant progress in many areas of culture. In almost all the fourteen major languages of India (fifteen including English), creative literature of the highest order has been produced. Satyajit Ray is recognized as one of the greatest film directors in the world. In classical music, Ravi Shankar and Ali Akbar Khan; in painting Jamini Ray and M.F. Hussain; in classical dance, Balasarasvati—these are only a few among the outstanding artists who have enriched Indian culture in recent decades.

Selectivity, assimilation and adjustment have characterized Indian culture throughout its long history. It has confronted and overcome many periods of crisis and uncertainty. Today there are new challenges, demanding new adjustments. Ours is the age of science and technology. How to preserve whatever is of enduring worth in the spiritual and aesthetic tradition that has stood the test of fifty centuries, and how to reinterpret that tradition in the contemporary context: that is the question which the thinkers, artists and writers of India have to deal with. Their ability to handle this task in a balanced and imaginative manner will determine the future course of Indian culture. ■



The Golden Temple, Amritsar, the holiest of Sikh shrines. The Sikh religion, which combines elements of Islamic and Hindu beliefs, was founded by Guru Nanak (1469-1539).

Balasaraswathi, one of the greatest exponents of Bharata Natyam, the classical dance of Tamil Nadu which originated in ancient south Indian temple rituals.

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MAKERS OF MODERN INDIA

BY SARVEPALLI GOPAL

Mohandas K. Gandhi (1869-1948), the architect of India's struggle for independence through non-violent disobedience to British rule.

MAHATMA Gandhi was the foremost leader of the Indian independence movement; and one of his great qualities was to secure and retain the devotion of persons of differing temperaments but all of very great distinction. Of these, three leading figures were Jawaharlal Nehru, Sarvepalli Radhakrishnan and Maulana Abul Kalam Azad.

Educated in Britain, Nehru was drawn to Gandhi because he felt that while others talked Gandhi was primarily a man of action who was making a dent on British rule. Nehru accepted Gandhi's method of non-violence, first as a useful weapon against the British and then, after the atom bombs of 1945, as a means without an alternative. He saw the validity of Marx's analysis of historical change but did not believe that such change can only be brought about by force. The class war could not be denied but it could be resolved by persuasion. In the freedom movement, Nehru realized that, while Gandhi had brought the peasants into the political campaign, to retain their interest and support the Indian National Congress should have an economic programme. In this sense he is a pioneer of modern, twentieth-century nationalism.

Once Gandhi had brought other classes into the independence movement, it became Nehru's task to hold the various classes together by taking account of the basic economic needs of the vast majority of the Indian people. So Nehru promised that, when freedom had been won, the free government of India would give priority to economic development and the promotion of social justice. Even before the departure of the British, Nehru made the Indian people conscious of the importance of planning.

Nehru's other great contribution to the independence movement was that he gave it an international perspective. He saw that fascism, militarism and imperialism were partners and against them were ranged popular and national movements all over the world. So the independence movement in India was part of a universal struggle and its allies were the peoples fighting for freedom and dignity in Europe, Asia and Africa.

Nehru's policies as India's first prime minister from 1947 till his death in 1964 continued to be influenced by these ideals. An emphasis on civil liberties and a search for a socialist pattern of society inspired all his efforts within India, while abroad he followed an active policy of support for anti-colonialism and anti-racism. He was particularly committed to Africa which he regarded as India's neighbour. He supported the national movements in Kenya, Algeria, Ghana and Nigeria and never compromised in his resistance to apartheid. Above all he was a supporter of the United Nations and its agencies, sent Indian troops as part of United Nations contingents to Gaza, Suez and the Congo and worked to promote total disarmament.

The contribution of Sarvepalli Radhakrishnan to the independence move-

Jawaharlal Nehru (1889-1964), the first prime minister of independent India

ment was of a different order. Imperialism damaged the identity of the Indian people by assuming that Western civilization was superior. In reply Radhakrishnan turned to the sources and, in his writings on Indian philosophy, showed that the thought of his people was second to none in logic and rationality. This enabled them to hold up their heads. But Radhakrishnan did more. He argued that philosophy was related to life and, while interpreting Indian thinkers at their best, also called on Indians to discard what was outmoded and to rid themselves of obscurantism and superstition. Their long and rich tradition had been arrested and required innovation and further evolution. Truth should not be allowed to be smothered by the dead past. The speculative and scientific thought of the West should be incorporated into the Indian heritage.

Moreover, by expounding Indian thought in terms which related to the Western tradition, Radhakrishnan made Indian culture a part of world civilization. He, like Nehru, accepted a nationalism which was a brick in the structure of internationalism and his philosophical efforts were intended to build understanding between East and West. A member before the Second World War of the International Committee for Intellectual Co-operation, he was active in Unesco from its foundation in 1945. He was a member of Unesco's Executive Board, served as its chairman, was elected president of the General Conference in 1952, and was associated with the opening of Unesco's Paris Headquarters in the Place de Fontenoy in 1958. To him Unesco was, as he described it, "the priesthood of the spirit".

Radhakrishnan's main activity, after India became free, was to help in the reconciliation of mankind on the basis of the common ground among all the religions of the world. He believed that a global community was emerging and that humanity should be educated to recognize its purpose and destiny. Appointed by Nehru as India's ambassador to the Soviet Union, Radhakrishnan stood nearly thirty years ago for negotiations and peaceful settlements between the two sides in the cold war. In 1952 he came back to India and for the next fifteen years in Delhi, first as Vice-President for ten years and then for five years as President, he gave the lead in

Sarvepalli Radhakrishnan (1888-1975) was a scholar and philosopher of international repute, noted for his work on Hinduism.

improving the quality of life and promoting character. Even while holding these high offices and carrying out his duty to his own people, Radhakrishnan continued to travel round the world, advocating the emergence of a new civilization based on the unity of mankind and common truths of the spirit and animated by a religion founded not on dogma but on the deepening of the individual's awareness and compassion for all fellow beings.

If Radhakrishnan was by birth a Hindu, Abul Kalam Azad was born in Mecca of pious Muslim parents; but they both had a strong sense of religion based on rationalism and the common values of all humanity transcending creeds and denominations. Fluent in Arabic and Persian and a scholar in Islamic studies, Azad gave a broad and liberal interpretation of the Qur'an. To him religion was a guide to proper action and his scholarship led him into public life. From 1912 his primary objective was to draw the Muslims in India into the struggle for freedom. A steadfast follower of Gandhi, he was elected a number of times President of the Indian National Congress and suffered long terms of internment and imprisonment. From 1920 political differences between Hindu and Muslim organizations increased; but the Congress insisted that nationalism had no connection with religion and the presence of Maulana Azad in the ranks of the nationalist leadership was the highest testimony of this. Azad's pride in being an Indian was strengthened by his commitment to what he termed the Islamic spirit, and he never accepted that a good Muslim could not be a good Indian.

From 1947 till his death in 1958 he served as India's first minister for education and was a key figure in the formulation of national policies in all fields. With his belief that true religion brings all peoples together, Azad also took much interest in the promotion of international understanding and was the president of the General Conference of Unesco at its session in Delhi in 1956.

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Maulana Abul Kalam Azad (1888-1958), the architect of India's post-independence education policy.

CLOSE-UP ON INDIAN CINEMA

BY KHALID MOHAMED

Nargis and Raj Kapoor in Kapoor's *Awaara* (1951; *The Tramp*). The fifties were one of the most creative periods in commercial film making in India. Raj Kapoor and Nargis became the golden couple of Indian films and made several box office hits together.

CINEMA in India is a ticket to a world of fantasy, providing an escape from the harsh reality of everyday life. Three-quarters of a century old, it is still eagerly wooing its faithful audience with stories of virtuous people battling against the odds and emerging victorious. At various stages in its history, Indian cinema has borrowed themes, ideas and even entire plots from foreign sources. It has always been heavily influenced by Hollywood, and costume epics, thrillers, love stories and family dramas from the United States have often been refashioned to suit Indian taste, which is demanding and virtually inflexible. As a rule, every film must include at least half a dozen songs and dances (although in recent years the more adventurous film makers have sought to slash this number by half), high melodrama with a strong emotional impact, and a climactic sequence in which the hero usually destroys the villain with fists or guns.

Traditionally Indian films have a hero, a heroine and a villain. On the periphery there are a mother figure, a comedian to provide light relief, a child or teenager

who will appeal to the young people in the audience, and a Muslim or a Christian character. This is the framework devised by the Bombay movie moguls and it is followed by other film-producing centres in Madras, Calcutta and the Punjab.

The father of Indian cinema was Dhundiraj Govind Phalke (1870-1944). Born into a priestly family in Nasik district, not far from Bombay, Phalke was trained to be a Sanskrit scholar, but his interests lay more in the direction of painting, theatre and magic. When he saw a film about the life of Christ, he was excited by the possibilities of the new medium. The outcome was India's first feature film, *Raja Harishchandra* (1913), whose plot, drawn from Indian mythology, was a celebration of the deeds of the monarch who sacrificed his wealth, kingdom and family in his quest for truth.

Phalke became a prolific film producer whose work was popular throughout the country. Other stalwarts of the Indian silent cinema included Dhiren Ganguly, who made the satirical comedy *England Returned* (1921); Debaki Kumar Bose, who directed the adventure movie *Kanamar Aagun (Flames of Flesh;* 1928); and Chandulal Shah who made *Typist Girl* (1926) and *Gun Sundari (Why Husbands Go Astray;* 1927), both of which evoke the strength and dignity of the Indian woman.

Film making became big business as well as a medium for artistic expression. Studios and production groups such as New Theatres of Calcutta, the Prabhat Film Company of Pune (near Bombay) and Bombay Talkies were formed by entrepreneurs and dictated taste during the 1930s, the first decade of sound. One particularly active studio, the Imperial Film Company, produced India's first talking feature, *Alam Ara (Beauty of the World;* 1931, in Hindi), which included a dozen songs.

By 1940, 100 films a year were being made in India, a figure which doubled by 1950. Today, India ranks third in the total number of films produced after the United States and Japan, but since 1976 has led the world in annual film output. In 1983, 763 Indian films were made, most of them in Bombay and Madras. Current output is over 900 films a year, and despite keen competition from television and video, cinema is still India's best-loved form of entertainment.

Yet Indian cinema has not confined itself to entertainment. It has made genuine efforts to portray the Indian mind and emotions. It has advanced the theory that the good must triumph over evil, taken the side of the downtrodden, stressed the need for respect for one's elders, and portrayed the quality of honesty in a largely corrupt world. The best examples of such cinema date from the 1950s, which is generally acknowledged to have been a golden decade when film makers were not entirely dominated by box office considerations and the national mood was one of optimism and hope.

The films made in the 1950s by directors V. Shantaram, Raj Kapoor, Guru Dutt and Bimal Roy are today widely regarded as masterpieces. Plots were then often taken from indigenous literary sources and were rooted in Indian soil. The intention was to combine social conscience with entertainment, a difficult blend to achieve. There was also a drive to use more advanced technology.

After the 1950s, with the advent of colour, the cinema became more lighthearted and escapist. The tendency was to produce sugary love stories set in Kashmir or picturesque hill-towns such as Darjeeling. From this background emerged India's best-known film maker, Satyajit Ray.

Born in 1921 into a cultivated Bengal family, Ray was influenced in early life by the great poet Rabindranath Tagore, and by his own father Sukumar, a noted Bengali writer. He became acquainted with the French director Jean Renoir when Renoir was making his film *The River* in Calcutta. Encouraged by Renoir, Ray started work on *Pather Panchali (Song of the Road;* 1955). This film, the

The Indian actress Geeta in M.S. Sathyu's *Garm Hawa* (1973; *Hot Winds).* The film won praise for its sensitive handling of the problem of the partition of India.

Still from Mrinal Sen's *Ek Din Pratidin* (1979; *And Quiet Rolls the Day*). Sen's films are more political than those of his contemporary, Satyajit Ray, and Sen is often described as a "committed film maker".

first of the Apu trilogy based on novels by the Bengali writer Bibhuti Bhushan Banerji, was completed on a shoestring budget. At the 1956 Cannes film festival it was voted the "best human document" shown.

Ray's work has brought world status to Indian cinema. The Apu trilogy, *Mahanagar (The Big City;* 1963) and *Charulata* (1964) are recognized as masterpieces. Another Bengal film maker, the late Ritwik Ghatak, is also widely considered as a director of genius. His *Ajantrik (The Mechanical Man;* 1958), a fable about a taxi-driver's relationship with his dilapidated taxi, and *Meghe Dhaka Tara (The Hidden Star;* 1960) are brilliant depictions of harsh east Bengal reality.

Mrinal Sen, like Ray, is a product of the Calcutta film society movement. Inspired by the international classics he had seen, he made *Raat Bhore (Night's End;* 1956) and *Neel Akasher Neechey (Under the Blue Sky;* 1958). His *Baishey Shravana (The Wedding Day;* 1960) was well received at the Venice Film Festival.

Changes swept through Indian cinema in the late 1960s and the 1970s after Indian film makers had come into increasing contact with the work of foreign artists and directors. Both Ray and Bimal Roy, for example, had been impressed and influenced by Italian neo-realism.

There was also a growing awareness of the need to set up an institution where students could learn the art of film making, and in response to this the Film Institute of India was founded in Pune in 1961. Its graduates were taught not to pander to accepted formulas but to strike out in new directions. The new movement in the cinema was supported by the Film Finance Corporation, later incorporated into the National Film Development Corporation (NFDC), which had a string of artistic successes to its credit by the end of the 1960s, starting with Mrinal Sen's *Bhuvan Shome (Mr. Shome;* 1969), the story of a tyrannical bureaucrat who meets a dynamic farm girl. Two of the most original talents in Indian cinema are graduates of the Pune Film Institute. Both Mani Kaul *(Uski Roti; A Day's Bread,* 1970) and Kumar Shahani *(Maya Darpan;* "The Mirror of Illusion", 1972) have refused to compromise with the dictates of the market, and despite being criticized for not being "accessible", they have worked towards the development of new narrative techniques in their films.

A trend commonly known as "middle of the road" cinema has also emerged through films treating subjects such as rural oppression and political chicanery. The leading figures in this movement are

Dharmendra, who has been playing leading roles in commercial films for almost 25 years. This is a still from *Rezia Sultan*, a film about the life of Queen Rezia of the Delhi Sultanate shortly before the Mughals came to northern India in the early 16th century.

A still from Kumar Shahani's *Tarang* (1982; "Vibrations"). With Mani Kaul, Shahani started the experimental trend in Indian cinema.

Shyam Benegal *(Ankur; The Seedling,* 1974) and Govind Nihalani *(Ardh Satya).*

Among the promising younger film makers are Ketan Mehta *(Bhavni Bhavai; A Folk Tale,* 1980), Saeed Mirza *(Albert Pinto Ko Gussa Kyon Aata Hai; What Makes Albert Pinto Angry,* 1980), and Kundan Shah *(Jaane Bhi Do Yaaro).* Eclectic, dynamic and inventive, their work deals with issues ranging from housing problems and casteism to the lust for money in the corridors of power.

In recent years a vigorous, individualistic movement, led by G. Aravindan and Adoor Gopalakrishnan, has developed in the region of Kerala in southern India. Aravindan's *Thampu (The Circus Tent;* 1978) *Chidambaram* and *Oridath,* and Gopalakrishnan's *Swayamvaram (One's Own Choice;* 1972), *Kodiyettam (Ascent;* 1977) and *Mukhamukham,* made during the 1970s and 1980s, have established the reputation of these directors and reflect their sensitivity to social conditions in Kerala state. ■

Rekha, an accomplished classical dancer, is one of the most popular actresses in India today.

KHALID MOHAMED is a film critic with *The Times of India.* He is currently preparing a television series on major Indian film directors.

Satyajit Ray during the shooting of *Sukumar Ray,* Calcutta, 1987. Ray, who turned 67 last year, has begun working again after a period of enforced idleness due to illness.

A NEW POLICY FOR EDUCATION

BY ANIL BORDIA

Primary school classes are often conducted in the open air.

EDUCATION was given high priority after India gained independence in 1947. The new Constitution called on the State to provide free and compulsory primary education and gave the federal government the responsibility for maintaining standards in higher and technical education. By a subsequent amendment to the Constitution, education was also declared to be a concern of the provincial governments. India opted for a planned economy, and each five-year plan indicates the directions for educational development.

Dramatic expansion of education has taken place since independence. The number of primary (including upper primary) schools has tripled and enrolment has increased from about 30 per cent to 80 per cent. The increase in the enrolment of girls at primary level has been particularly impressive, from 17.7 per cent in 1950-1951 to 64.6 per cent in 1986-1987.

Increase in enrolments has been even more spectacular in secondary education, and the number of schoolteachers has risen from 750,000 to 3.7 million. In higher and professional education, the number of institutions and enrolments has increased eightfold, and in technical education about tenfold.

In 1964, the Government of India ap-

A class in a village school, Uttar Pradesh.

pointed a commission to advise on the national pattern of education and on the general principles and policies for educational development. Four years later, an education policy formulated on the basis of the commission's recommendations called for a transformation of the education system which would relate it more closely to the life of the people; a continuous effort to expand educational opportunity; a sustained and intensive effort to raise the quality of education at all stages; an emphasis on the development of science and technology; and the cultivation of moral and social values.

The most remarkable change which took place after the adoption of the 1968 Education Policy was the establishment of a common structure of education. This consisted of ten years of common schooling for all children, followed by two years of higher secondary education and a three-year degree course.

In 1985, the Central Government again reviewed the educational situation and decided to initiate a new National Policy on Education, which was debated extensively by students, teachers and people in all walks of life before it was passed by the two Houses of Parliament in February 1986. A detailed Programme of Action was completed a few months later to ensure that the policy would be implemented without delay.

The 1986 education policy envisages a national system which will take determined action to bring about universal primary education and promote the spread of adult literacy, thereby helping to reduce inequalities. The education system will be based on a national curricular framework which contains a common core as well as components specific to each region. The core will cut across subject areas and will be designed to promote such values as India's common cultural heritage, egalitarianism, democracy and secularism, equality of the sexes, protection of the environment, observance of the small family norm, and the scientific approach. Pace-setting schools called *Navodaya Vidyalayas* will provide quality education to particularly gifted children, irrespective of their families' means, and will promote excellence as well as equity and social justice. The 1986 policy also emphasizes the need to raise the level of investment in education from about 4 per cent of national income in 1986 to 6 per cent by 1990 and even higher thereafter.

Soon after assuming office in 1984, Prime Minister Rajiv Gandhi announced his decision to launch a National Literacy Mission (NLM) to bring functional literacy to some 80 million illiterate people in the 15 to 35 age group. The teaching of functional literacy is designed to achieve a variety of goals, including self-reliance in literacy and numeracy; the development of awareness among the poor and the illiterate of the causes of their deprivation; the acquisition of skills to improve economic status and general well-being; understanding of the values of national integration; conservation of the environment; women's equality; and the small family norm. NLM also stresses the importance of post-literacy and continuing education.

A number of important initiatives have been taken as a result of the new national policy on education:

* A nationwide programme for the improvement of primary education facilities, including reorganization of teacher training, is now under way.

* New curricula have been written for primary and secondary education and new textbooks and teaching materials have been prepared.

* Special programmes have been launched to improve science teaching, introduce computer literacy and promote awareness of environmental issues.

Bombay. A photography class in progress.

A class of medical students examine a patient. Almost every city in India with a population of over two million has a medical college and teaching hospital.

* By 1988, 256 *Navodaya Vidyalayas* had been established.

* Approximately 500,000 students and 500 voluntary agencies were involved in the National Literacy Mission in 1987-1988. Several districts and big cities such as Delhi, Bombay, Bangalore, Madras and Ahmedabad are launching campaigns to eradicate illiteracy by the end of 1990.

* A statutory body, the All India Council of Technical Education, has been created to maintain standards for institutions of technical education and to modernize technical education to prepare the workforce needed for rapid technological and scientific change. ■

ANIL BORDIA has been involved with the administration of education in India for about 15 years and is currently Education Secretary in the Government of India. He was closely involved in the preparation of his country's new education policy and is responsible for its implementation.

Colour Pages

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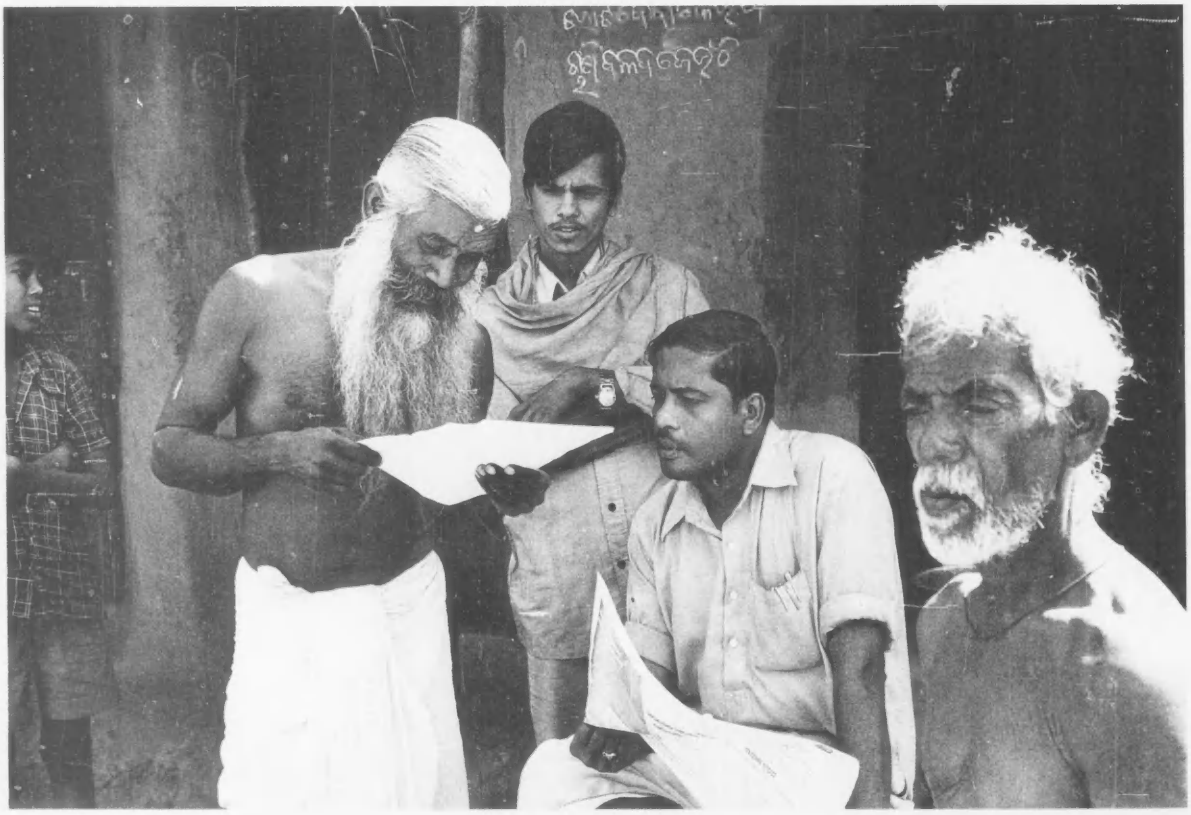
Above: a shrine (11th-15th century) at Dilwara on Mount Abu, a centre of pilgrimage for followers of the Jain faith. Rajasthan state, northwest India.

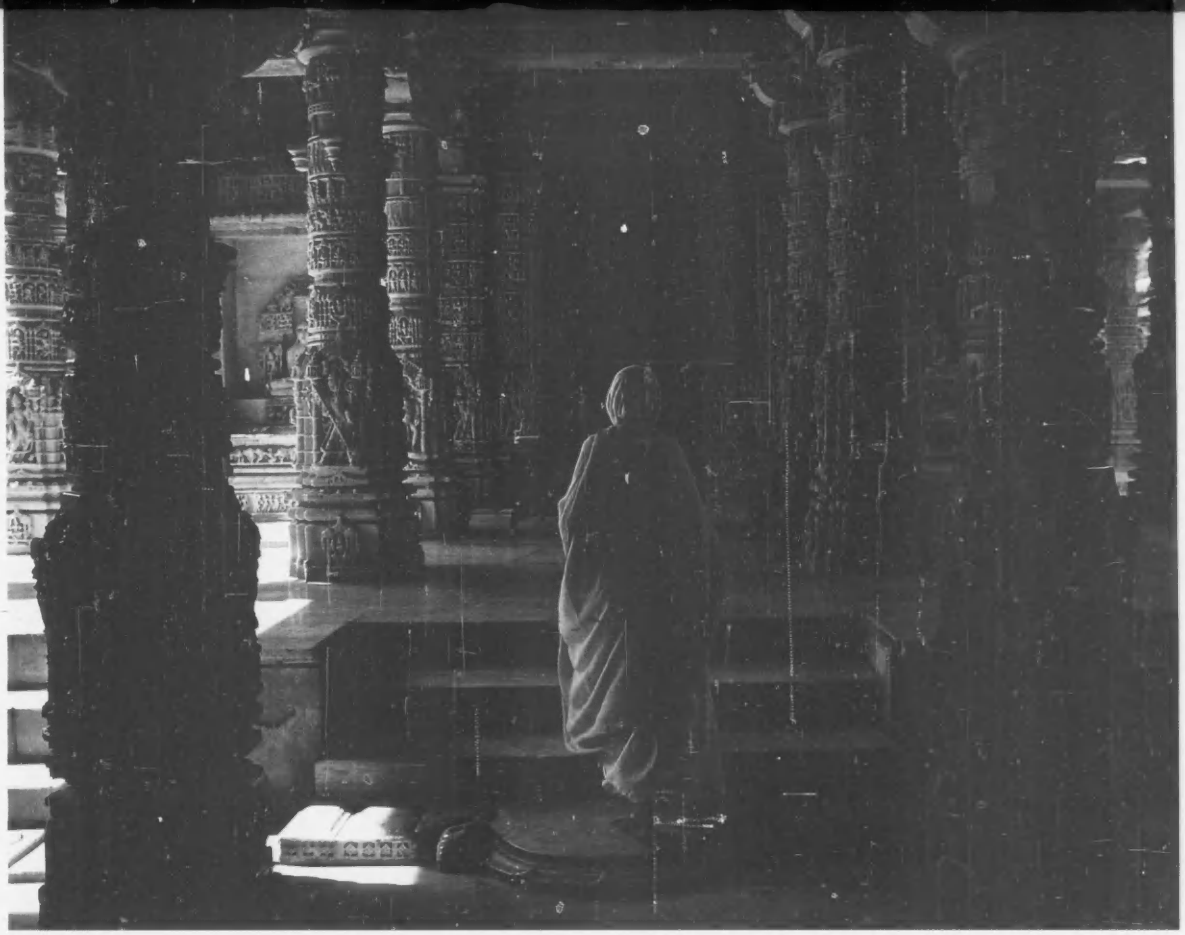
Below: On the occasion of the Kumbha Mela festival held every 12 years in the sacred city of Hardwar (Uttar Pradesh), where the Ganges leaves the mountains, millions of Indians bathe in the purifying waters.

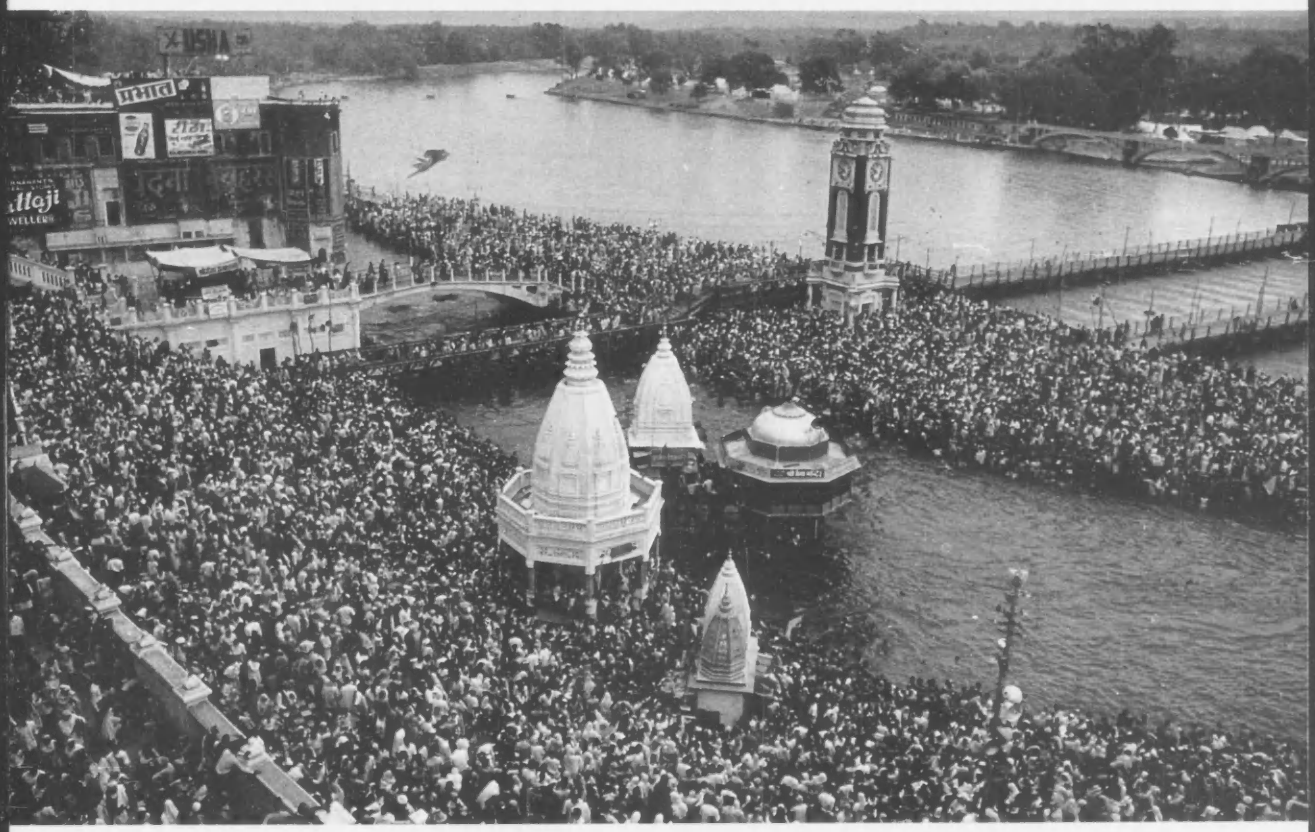
Centre pages

Anti-clockwise from top left: steel plant owned by the Tata industrial group, which is closely identified with the history of modern India. Sikh harvesters in the Punjab. Oil rig workers in the Gulf of Cambay on India's west coast. Crafts students decorate papier-mâché articles, Srinagar (Jammu and Kashmir). Women carrying wood, Rajasthan.

A traditional letter writer. With the spread of literacy his is a dying art.



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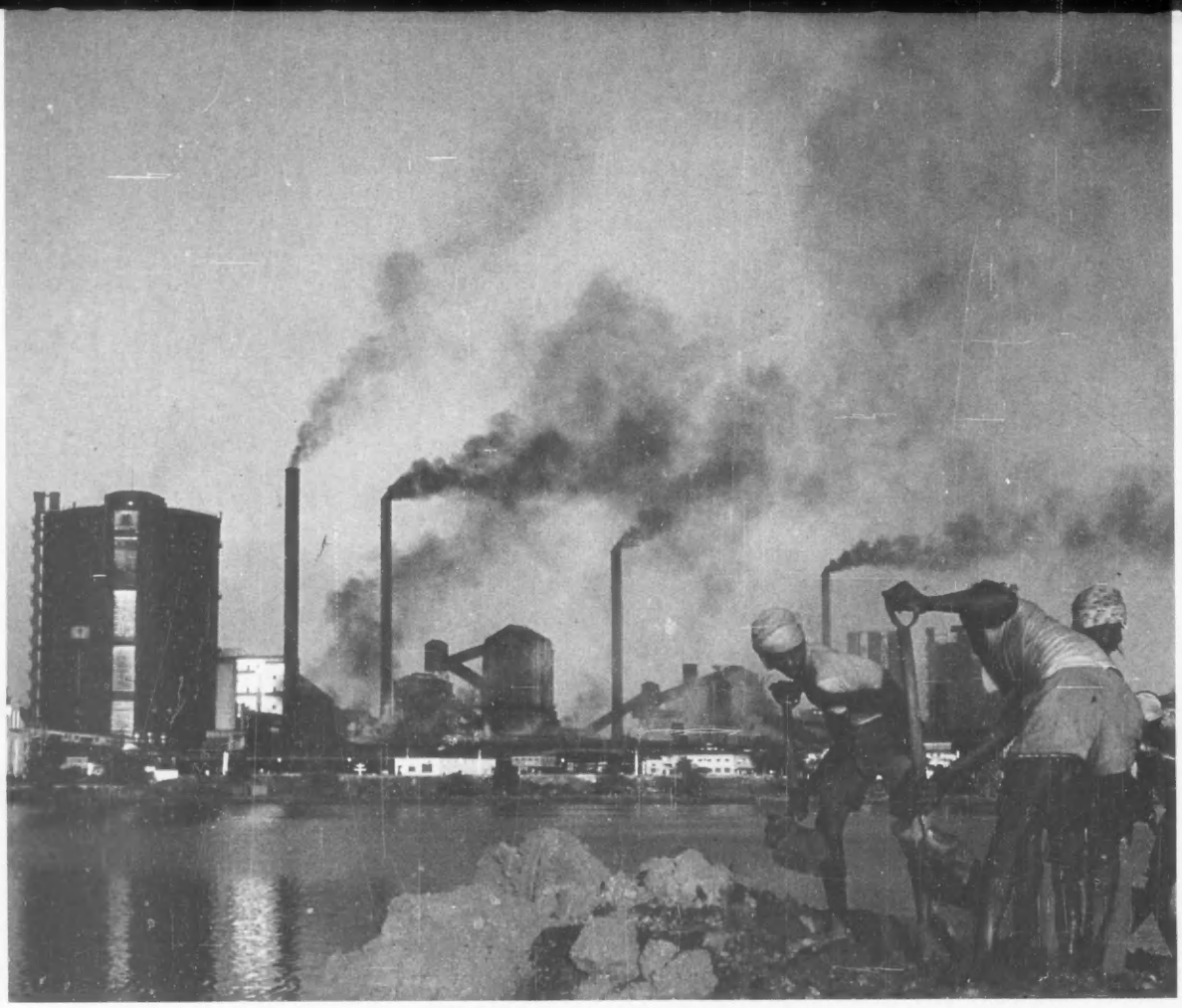

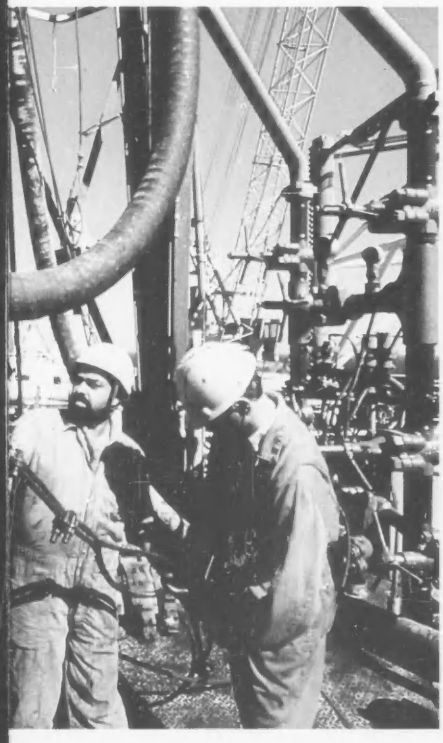

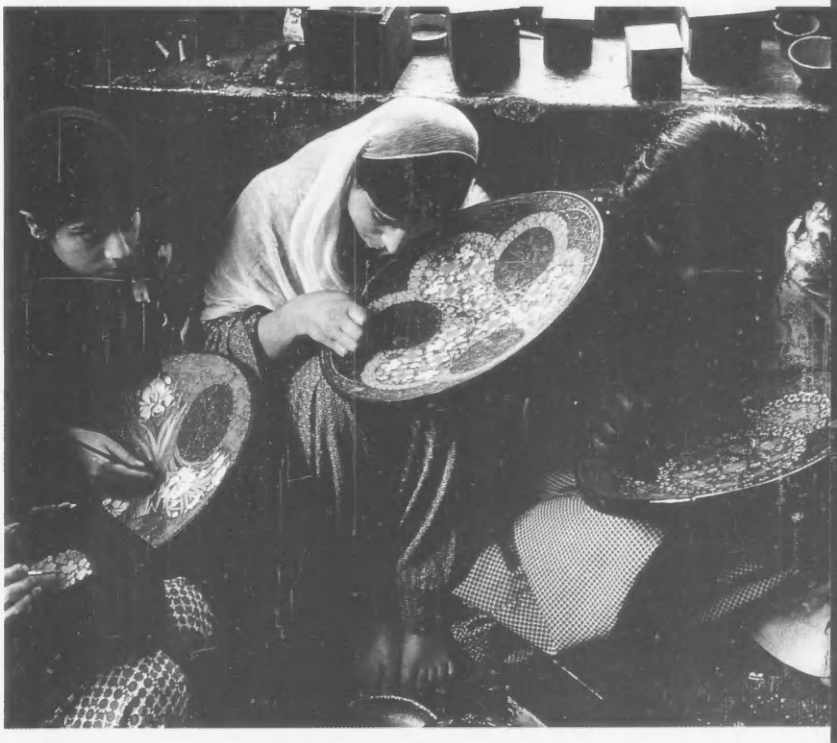

INDIA'S LIFELINE

BY ANEES JUNG

INDIA waits for the monsoon each year the way a child waits for its mother's breast. But unlike the child that comes of age and stops waiting, more than half of India depends on the monsoon for its survival. When it fails the land broods.

To awaken the monsoon, the peasants in my mother's village would come singing through the dust-filled tracks carrying a huge basket poised on a wooden pole. A large bull frog would be seated in the basket that was padded with neem leaves. The cry of *Hassana Hossana uyalo* would rend the still hot air. Children would run out of sun-baked huts and pour drops of precious water on the frog. And by evening the clouds would roll in, the heavens would thunder and there would be rain.

Customs such as these have been part of every Indian child's heritage. But now the age of miracles seems to be over. One child in Rajasthan I met a year ago had not seen rain. He was six years old. His mother, a young woman of thirty, had begun to look like an older woman. She had lost the lilt of her limbs, walking five kilometres each day to fetch water for drinking. Her well was dry, like all the wells in her area.

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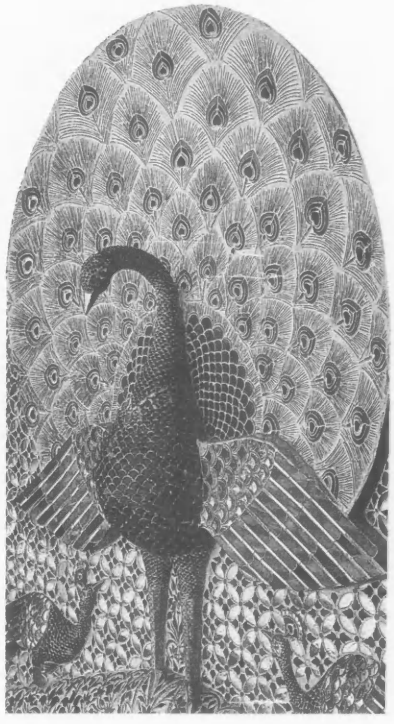
During the monsoon rains, a woman carrying wheat flour in a can walks past submerged fields. Monghyr, Bihar state.



The peacock is India's national bird and is often depicted in the company of Lord Krishna.

The monsoons had failed Rajasthan for several years. The grass was brown. All crops had been lost. Dead guava trees were being cut for fuel. Even in the city of Ajmer the taps would come to life only once every four days, and then only for a few hours. The Anasager lake looked like a burning bowl of sand. The washerwomen had disappeared from its shores. The beating of their clothes had been silenced. On the edges of the city, in relief camps, lean cattle stood with vacant eyes. The animal most prized by the farmer had been anointed with *kum kum,* the auspicious red powder, and had been abandoned. There was no fodder.

"We want food not money", said the women who were hired to work in the drought relief work programmes. Lack of rain had killed the crops, aggravated inflation, spiralled prices across the parched land. In Madras, there were fist fights in the lines of people waiting at community taps for water. Hordes of elephants ambled away from the parched forests of Tamil Nadu into neighbouring Karnataka. In the unrelenting sun farmers in the country beseeched gods, priests chanted mantras in good faith, scientists wondered why their sound vibrations were not stirring the atmosphere, seeding the clouds and sending rain. Meteorologists scanned the skies and put out intricate weather charts. On the whims of the monsoon rested major economic decisions. Political fortunes were staked on its success and failure. On the promise of the monsoon rested the survival of a vast land.

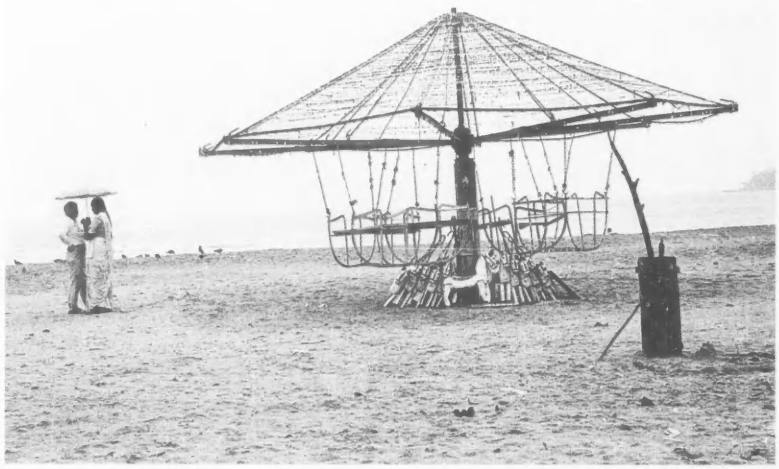
The Indian monsoon is not just another word for rain. It is neither a typhoon nor a spell of roaring winds. It is a season whose name stems from the Arabic word *mausem.* It is not rainfall that determines and defines the monsoons but the seasonal winds that shift direction twice a year. If the wind is from another direction there is no rain. There is a summer monsoon and a winter monsoon. But it is only the nimbus southwest winds of summer that make a *mausem*—the

season of rains. It is preceded by the *loo*, hot dry winds, days of intense heat and a scorching sun.

When the pied-crested African cuckoos fly back and the shrill cries of peacocks fill the air, people know that the monsoon is days away. Peasants across the land have their own ways of predicting the monsoon. The more intense the heat, the more rain there will be, they say. The coming of the rains is also celebrated with intensity. People run out and soak themselves in the rain like children. In the words of the famous fifth-century poet Kalidasa, the clouds advance "like rutting elephants, enormous and full of rain. They come forward as kings among tumultuous armies; their flags are lightning, the thunder is the drum". It is as great an event for the farmer as it is for the singer, the poet. The heavy dark clouds fill the canvases of miniature painters. And for the poet, the dark tresses of his beloved are like the waves of the monsoon clouds. As long ago as the sixth century the poet Subandhu in his *Vasavadatta* welcomed the monsoons in these words:

"The rainy season had arrived. Rivers overflowed their banks. Peacocks danced at eventide. The rain quelled the expanse of dust as a great ascetic quells the tide of passion. The chataka birds were happy. Lightning shone like a bejewelled boat of love in the pleasure pool of the sky; it was like a garland for the gate of the place of paradise; like a lustrous girdle for some heavenly beauty; like a row of nail marks left upon the cloud by its lover, the departing day ... the rain was like a chess player while yellow and green frogs were like chessmen jumping in the enclosures of the irrigated fields. Hailstones flashed like pearls from the necklaces of heavenly birds".

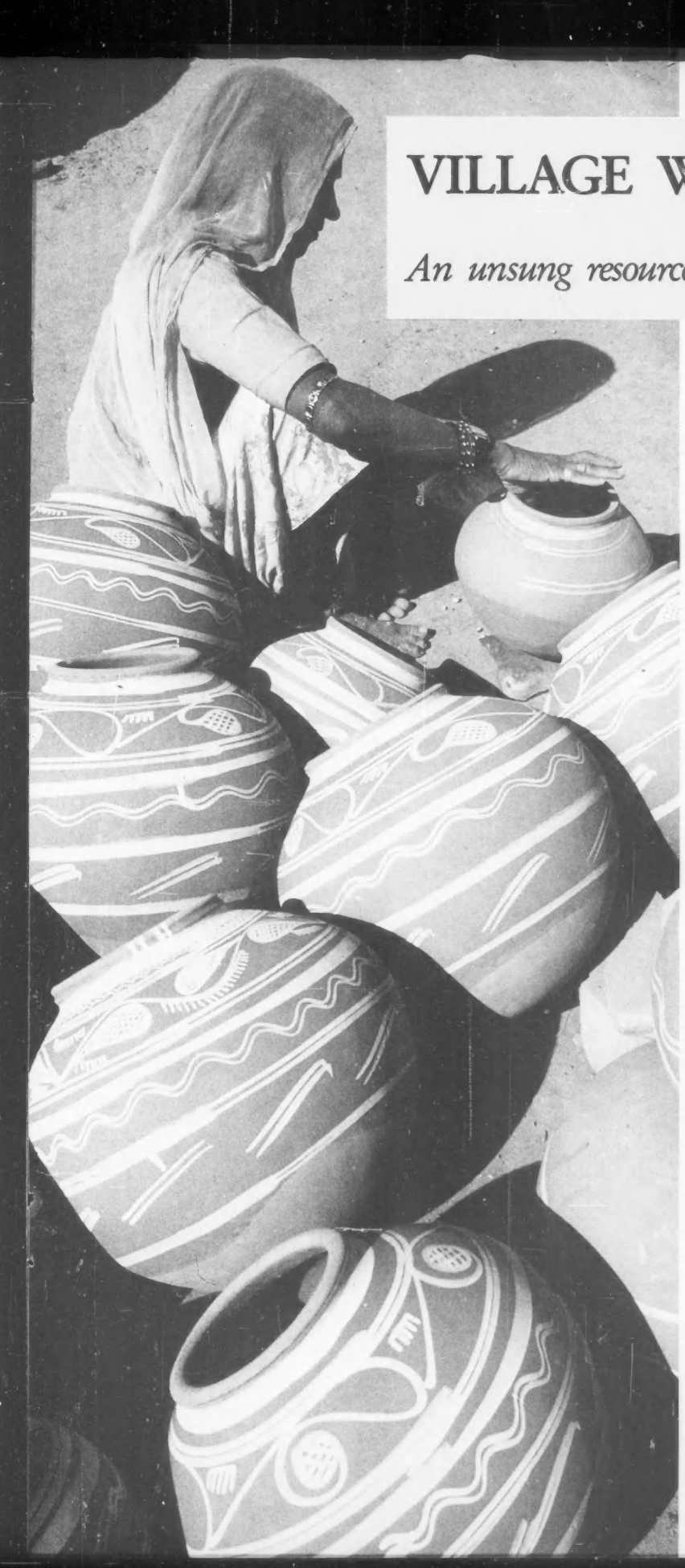
Some of the best evocations of the monsoons are found in the *baramasa* (twelve months), "lovers' calendars" composed by the poets of north India, in which feelings are expressed in harmony with the seasons. In all Indian languages innumerable proverbs stress the importance of rains. Some proverbs instruct farmers, others warn them of the nature of rain. Ghagh, the learned Brahmin poet-astrologer who composed many proverbs, had this to say: "When water in the pitcher does not cool, when sparrows bathe in dust and ants take their eggs to a safer place, you can be sure of a heavy downpour". His proverbs remain on the lips of every peasant in the Hindi-speaking belt of Uttar Pradesh and Haryana. "Scarcity is only a missed monsoon away", is a saying that lurks in the mind of every Indian. For the Indian monsoon remains unpredictable. It can skip a region, flood another, tease a third. It can, as the ancient proverb says, "fall on one horn of a buffalo and not on another". It can bless a land, but also deny and destroy. It wears a new face every season.



Monsoon in Bombay. Stolen moments under an umbrella.

A waterlogged street in Bombay during the monsoon. Theoretically the monsoon is supposed to hit Bombay on 10 June each year. A delayed monsoon means national headlines.

ANEES JUNG is a writer and journalist who has edited the Indian magazine *Youth Times* and has contributed to many publications in India and overseas. Her most recent book, *Unveiling India — A Woman's Journey*, was published in 1987. She is currently a columnist with *The Times of India* and is writing a book on Muslim women in India.



VILLAGE WISDOM

An unsung resource for rural development

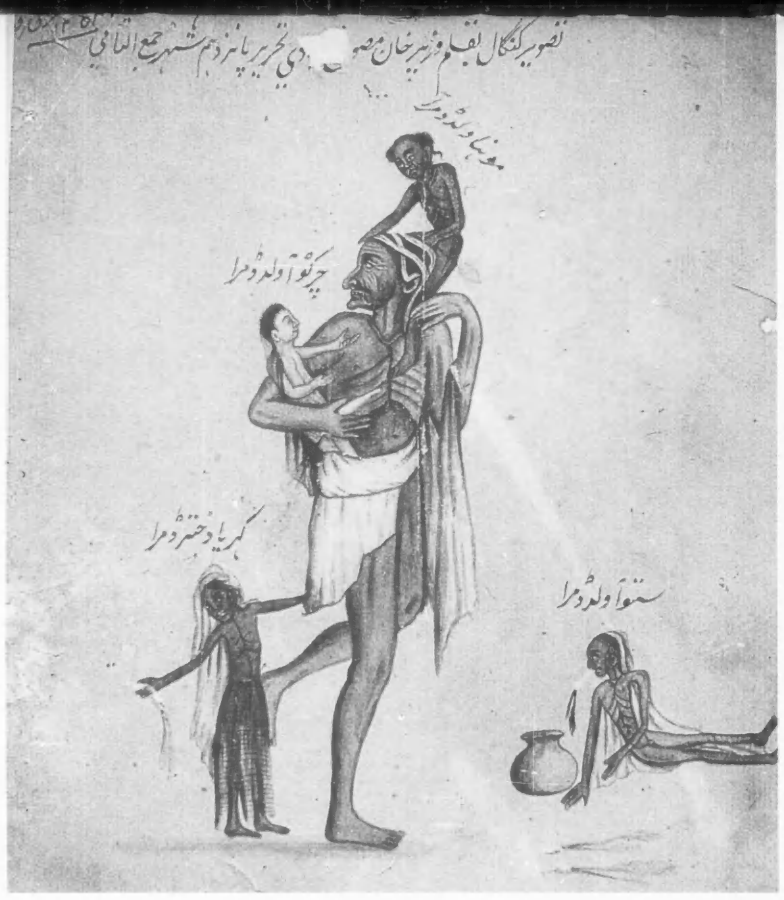
BY SANJIT BUNKER ROY

WHEN I began working in the villages in 1967 I used to think that India needed trained urban professionals to develop the rural areas. I used to think with the arrogance that young people acquire in public schools that rural India had nothing to offer and that its people needed us. Now, after twenty years of interaction with needy villagers, I have totally changed my position.

I respect the skill of the traditional midwife and believe she is much more important to rural India than the alienated urban-trained Auxiliary Nurse Midwife. I value the wisdom and knowledge of the village priest and marvel at his patience as a teacher.

Tilonia, in the district of Ajmer, Rajasthan state, runs fifty evening schools

Pottery from Rajasthan



This 19th-century miniature depicts a scene of famine. Overall food production gains in India since the Green Revolution began two decades ago have eliminated imports. Since 1964 wheat production has more than quadrupled.

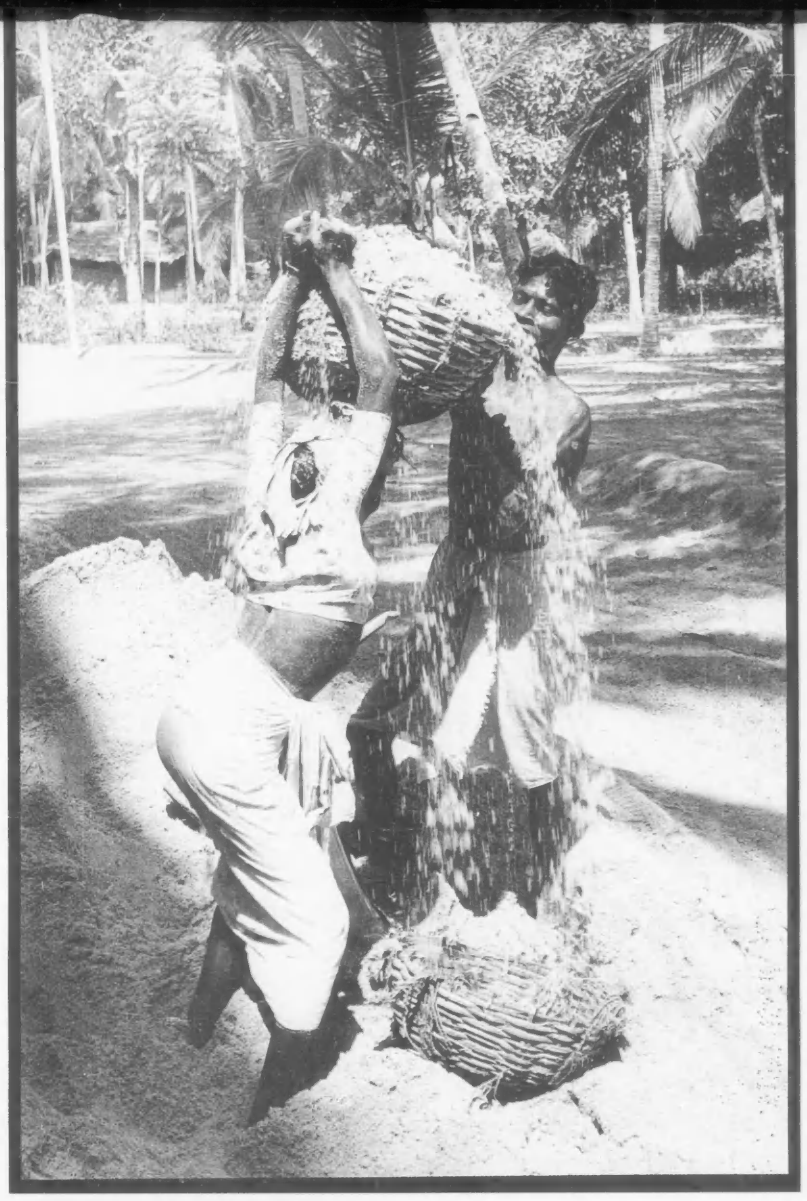
spread over an area of 1,300 square kilometres. These schools attract over 1,500 children who have dropped out from the regular school system. Among those who train the teachers in charge of these schools is a village priest. Another priest installs and maintains the sophisticated solar panel systems that provide three hours of light in many of the schools. Neither of them holds a teacher's diploma and would never obtain a government teaching post. When a professor from the Indian Institute of Technology came to see who was maintaining the solar units he was astonished to learn that there was no electronics engineer on our staff.

Planners have consistently underestimated the skill, knowledge and wisdom of people in rural India. No concentrated attempt has been made to identify the unused or under-used human resources which could help villages to achieve self-reliance, reduce their dependence on government and reduce the cost of social and economic services.

Adult education using satellites and community television sets. The programmes, which combine adult education with practical advice on sanitation, health care and improved farming techniques, have proved effective as awareness builders among the rural poor.

It was a roadside bicycle mechanic—a primary school dropout—who drew up the outlines of a system of hand pump maintenance which is currently being implemented, with community support, to repair over 40,000 hand pumps in Rajasthan. This Hand Pump Mechanic (HPM) scheme, for which the ex-bicycle mechanic is now responsible, is a practical alternative to an expensive, top heavy system which was designed by highly-trained engineers, and is not accountable to those who actually use the pumps. The HPM scheme is the only one of its kind being encouraged by India's Technology Mission on Drinking Water.

Such cases show that village people can think and propose solutions that are practical, inexpensive and widely applicable. But they have not been provided with a forum where they can share their views. The 1986 National Policy on Education mentions the need to reject the



Construction workers, Trivandrum, Kerala state. Women work as hard as men, often carrying very heavy loads, but despite equal wages legislation are frequently paid far less than male workers.

linkage between degrees and jobs. This is a welcome and long overdue step. Why should we penalize a person who provides a competent service to the community as a midwife, priest, water diviner, traditional bone-setter or hand pump mechanic, just because he or she does not hold a degree? Such people are assets to their communities.

This is not to deny that their skills need to be upgraded. Instead of replacing them and diminishing their worth in rural society we should do all we can to share our knowledge with them, give them the opportunity to choose those parts of our knowledge which are useful to them, and help them to become more effective. They alone know how to demystify technology, processes and methods. We must find time to listen to them, for they have an answer to T.S. Eliot's eternal question:

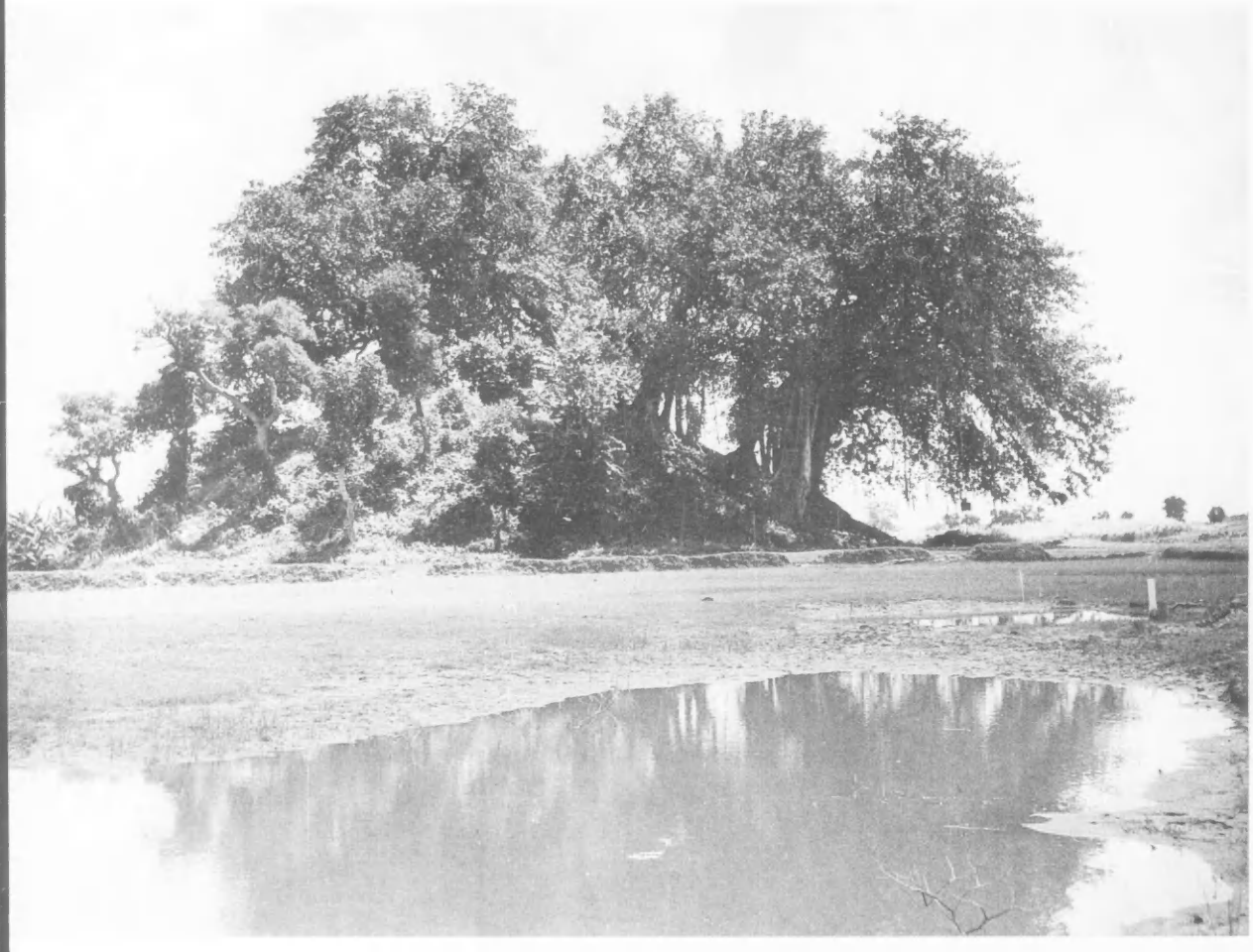
"Where is the wisdom we have lost in knowledge

Where is the knowledge we have lost in information?".

SANJIT (BUNKER) ROY is Director of the Social Work and Research Centre at Tilonia, Rajasthan state, in northern India.

A family planning poster in northern India. By the year 2000 India's population is expected to reach 1,000 million. Population growth has eroded the increase in industrial and agricultural production.

THE PHILOSOPHICAL TRADITION



Upavarta wood, near the town of Kusinagara, northern India. This is where the Buddha was reputedly cremated after his death and his ashes dispersed.

PHILOSOPHY is an integral part of the Indian tradition, and reflects vividly one of the main features of that tradition: unity underlying diversity. When Prince Siddhartha, the historical founder of Buddhism, renounced his palace in search of wisdom in the sixth century BC, he learnt that there were forty-eight philosophical schools, from naturalism and realism at one end to realism and mysticism at the other. The Sanskrit term for philosophy is *darshana*, literally "viewing" or "seeing". Truth is one, but it is multi-faceted and can be "seen" from different perspectives. Diverse *darshanas* or philosophical schools complement rather than contradict each other. This implies intellectual tolerance.

One of the unifying factors underlying divergent schools is the conviction that philosophical knowledge is not an

Illustration from an 18th-century Yoga manuscript

end in itself but a means to inner transformation leading to liberation *(mukti* or *Nirvana).* Even those who created highly specialized and technical philosophical systems accepted the common goal of liberation. It was assumed that philosophical insight is only one aspect of the highest wisdom which includes the moral purity of the sage and the sensitivity of the poet and the artist. A further point of agreement among philosophers (except materialists) is the view that liberation, the goal of wisdom, cannot come through an external force, such as "Destiny", but through our own deeds and thoughts *(karmas)* spread over a succession of lifetimes.

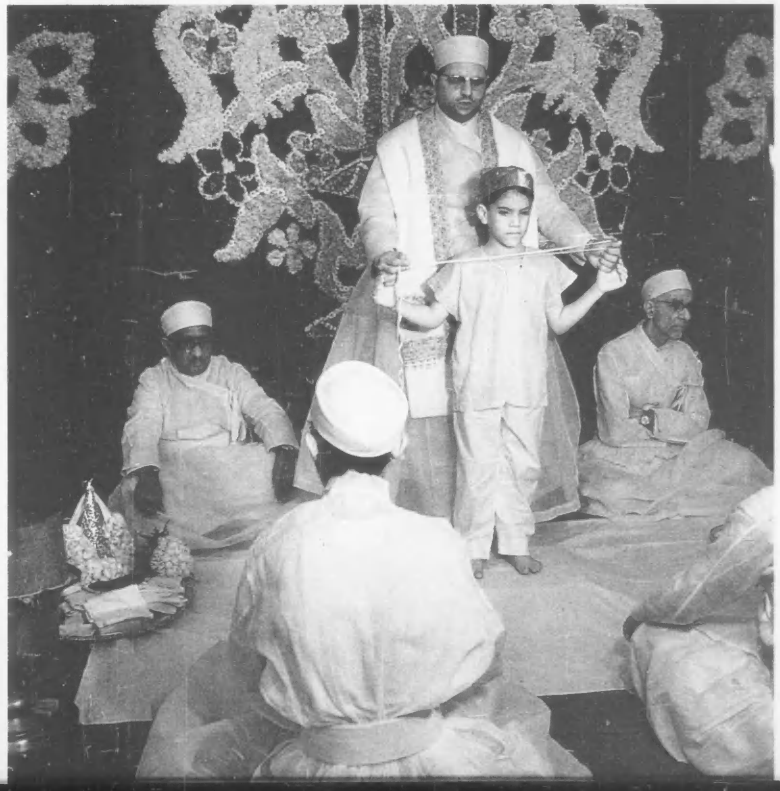
The Jaina philosophical school accepts the existence of many types of substances *(dravya),* the main distinction being that between inanimate substances *(pudgala)* and living substances *(jiva).* All living beings are souls, ranging from the lowest forms of life to the highest, the perfected beings *(tirthankaras)* who transcend finite attributes and attain absolute knowledge *(kaivalya).* The *tirthankaras* represent the highest reality, and there is no place for God in Jaina philosophy.

Buddhist thought, in its early phase, was mainly ethical, since the Buddha had avoided metaphysical issues, devoting his attention to the problem of Suffering. However, the Buddha's emphasis on the universality of the law of causation and the impermanence of all phenomenal things opened the way for metaphysics, particularly after the emergence of the Mahayana school. Nagarjuna (c.150-250 AD), the greatest among Buddhist philosophers, founded Shunyavada (The Doctrine of Emptiness). If Reality is to be grasped in its essential nature, all finite concepts and attributes must be "emptied out".

Turning to the Hindu tradition, in the earliest Vedic hymns (c. 1500-1200 BC) we already find the monistic trend that has subsequently dominated Indian thought. There must be, behind all multiplicity, a single reality which is called by different names. In the Upanishads, sacred texts composed many centuries later, the vision is turned inward and the one Universal Spirit dwelling in each individual (the Atman) is declared to be the same as the Supreme Reality (Brahman) at the root of the universe. Still later, in the *Bhagavadgita* ("Song of the Lord", c.200 BC) an attempt was made to synthesize different philosophical and religious perspectives into the "Six Doctrines".

These six systems of Hindu philosophy are traditionally grouped in three pairs: Samkhya and Yoga; Nyaya and Vaisheshika; Mimansa and Vedanta. There are fundamental differences between them, though formally they all

A Parsi coming of age ceremony. The followers in India of the prophet Zoroaster, the Parsis are fire-worshippers. Their name means "Persians" and they are descendants of Zoroastrians who emigrated from Persia to escape religious persecution in the 8th century AD. This tiny community (less than 100,000 today) has made significant contributions to India's industrial development.

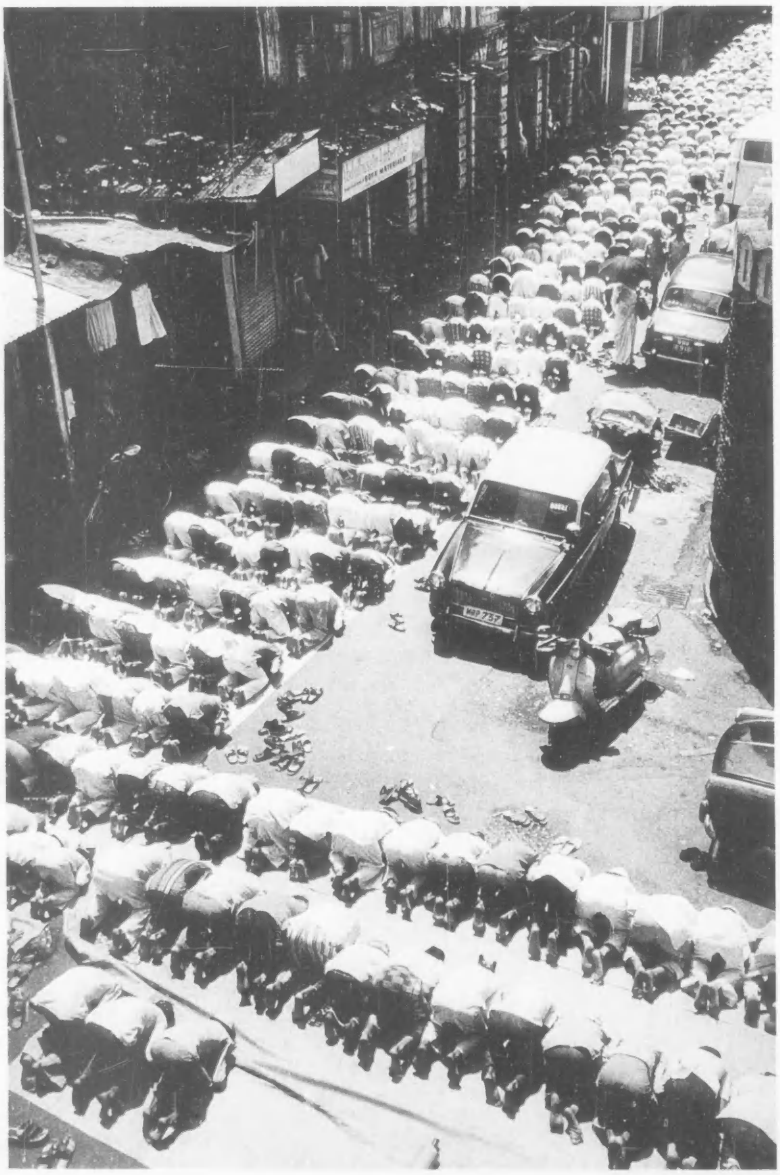


accept the authority of the Vedas, Upanishads and the *Bhagavadgita.*

Samkhya is dualistic. It accepts two independent realities: *Purusha* (Spirit) and *Prakriti* (Nature). The former is pure Consciousness, the latter is the principle of energy. They do not meet, but the very nearness of Purusha stirs Prakriti. The balance between the three main ingredients of Prakriti is disturbed, and the universe evolves. Yoga accepts the philosophical foundation of Samkhya and applies it to the practical side of Self-realization. The aim of Yoga is to undo the distorsions caused by the mind, so that the true nature of Spirit may be realized. This can be achieved through meditation, for which one has to equip oneself through bodily and mental control.

The Nyaya ("Analysis") school deals with logical propositions and fallacies, and examines the sources of human knowledge. Vaisheshika discusses different categories of substances. It asserts that all substances are composed of four types of atoms which are eternal and indivisible.

The Mimansa ("Enquiry") school deals with causality and offers a philosophical justification for the authority of the Vedas and Vedic ritual. Vedanta ("the End of the Vedas") represents the crowning glory of classical Indian philosophy, the culmination of the Vedic tradition. Vedanta has many schools, the most influential being Monism, or "Non-dualism" *(Advaita).* Ramanuja (d. 1137) asserts that the world, and the human individual, though not identical with God, are within the Divine Whole. The great philosopher Shankara (c. 788-820) offers a more complete and absolute Monism. Brahman or the Absolute is the *only* true reality. The human self *(jiva)* is identical with Brahman, while the world *(jagat)* is a mere appearance. The self and the world are seen as separate because of a mysterious, cosmic power *(Maya,* "illusion") which causes ignorance. Shankara's *Advaita Vedanta* doctrine has dominated Indian thought for twelve centuries. Its prestige can be judged by the popular saying that no other philosophy can challenge *Advaita,* "just as all living beings in the forest are silent when the lion roars". **V.S.N.**



Muslims at prayer outside an overflowing Bombay mosque. Muslims make up India's second largest religious community.

HIGH DAYS AND HOLIDAYS

The *ratha* or temple chariot being taken out in procession, Tamil Nadu, south India. The chariot, which weighs several tons, is pushed by elephants and devotees.

VISITORS who come to India with the notion that the Indian outlook on life is austere and pessimistic are surprised to see the zest for life which Indians display. This enthusiasm is seen in a vivid and picturesque light during the fairs and festivals that have been held since remote Antiquity.

Festivals afford glimpses of the continuity and diversity of Indian life. People of different regions, speaking different languages, can be seen wearing a variety of costumes. There are farmers and aristocrats, mendicants and astrologers, poets, preachers and wandering singers. There is colour and pageantry, faith and devotion. And, amidst all this diversity, we feel the living presence of India.

Most of the festivals have a strong religious basis. There are discourses, hymns, chants, and readings from scriptures. Many festivals are associated with specific deities. *Rama Navami* (March or April), *Shiva Ratri* (February or March) and *Krishna Janmashtami* (August) are celebrated in honour of Rama, Shiva and Krishna respectively. The festival of the goddess Durga comes in October, while Sarasvati, goddess of learning and the arts, is worshipped in early spring.

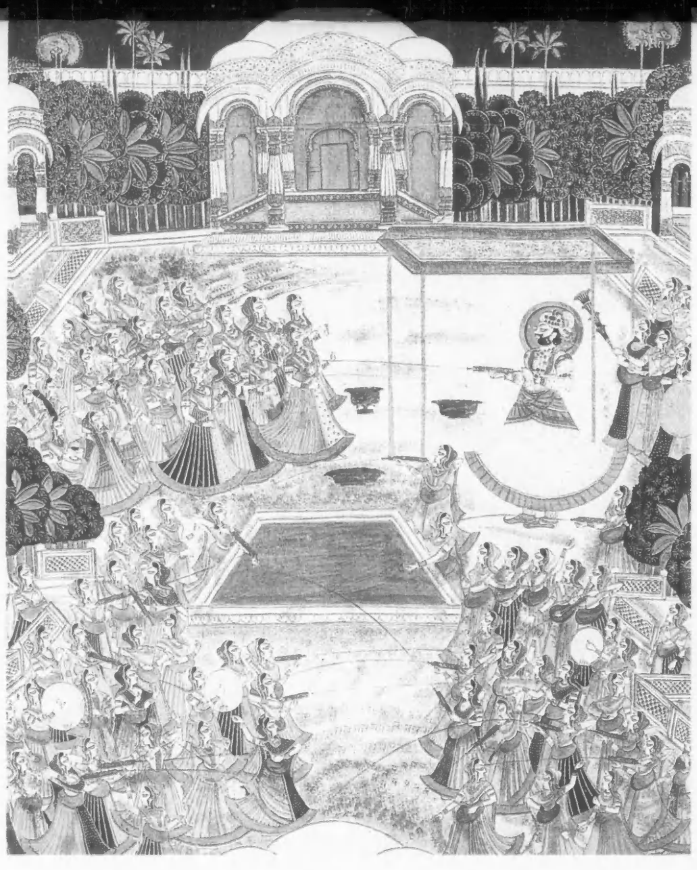
The Indian calendar is lunar. Special sanctity attaches to festivals held on nights of full moon or new moon. Apart from the moon, other phenomena of Nature are commemorated with affection and reverence. A day is set aside for expressing gratitude to the banyan tree, another is devoted to the *nagas* (serpents). Seasons are welcomed with festivities. *Vasant Panchmi* (early February) is the festival of spring. The autumn is greeted on the brightest moonlit night of the year, *Sharad Purnima* (usually in late October). Many fairs and festivals are held on the banks of sacred rivers. At the confluence of the Ganges and the Yamuna rivers at Allahabad, a festival is held throughout the month of *Magha* (January-February). Every twelfth year, this religious fair is known as the *Khumba Mela.* During the *Kumbha,* sometimes more than five million people come to bathe at the holy confluence on the day of *amavasya* (new moon).

The most important Muslim festival is *Id al-Fitr*, at the end of the month-long fast of *Ramadan*. People wear new clothes and offer special prayers at mosques. This is followed by a feast. The Parsi new year *(Nauroz)*, and the Christian festivals of Christmas and Easter, are celebrated with great enthusiasm. The birthdays of Buddha, Mahavira and Guru Nanak (founders of Buddhism, Jainism and Sikhism respectively) are national holidays. The majority of festivals, however, belong to the Hindu tradition.

On these occasions, the religious and secular aspects of life are happily blended. Religious ritual is combined with cultural programmes: folk dances, concerts, popular plays, puppet shows, poetic symposia. Wayside shops spring up, and bargaining is a popular diversion. In recent years, even politicians have started addressing the crowds that gather at festivals.

Dussehra, Diwali and *Holi* are the three major Hindu festivals. The ten-day *Dussehra* festival commemorates the victory of Rama, an incarnation of the Divine, over Ravana, king of the demons. Episodes from the ancient epic, *Ramayana,* are enacted on the stage.

Three weeks after *Dussehra,* which usually occurs in October, comes *Diwali,* the Festival of Light. Houses are cleaned and illuminated in order to welcome Lakshmi, the goddess of well-being and prosperity. There is a display of fireworks, and traditional sweets are served after the ceremonial worship of Lakshmi. An interesting feature of *Diwali* is the honour paid to the materials used in various vocations. Goldsmiths and carpenters polish their tools and place flowers upon them. Merchants honour their account books. Artists and writers express their gratitude to their brushes, pens, pencils and inkpots!

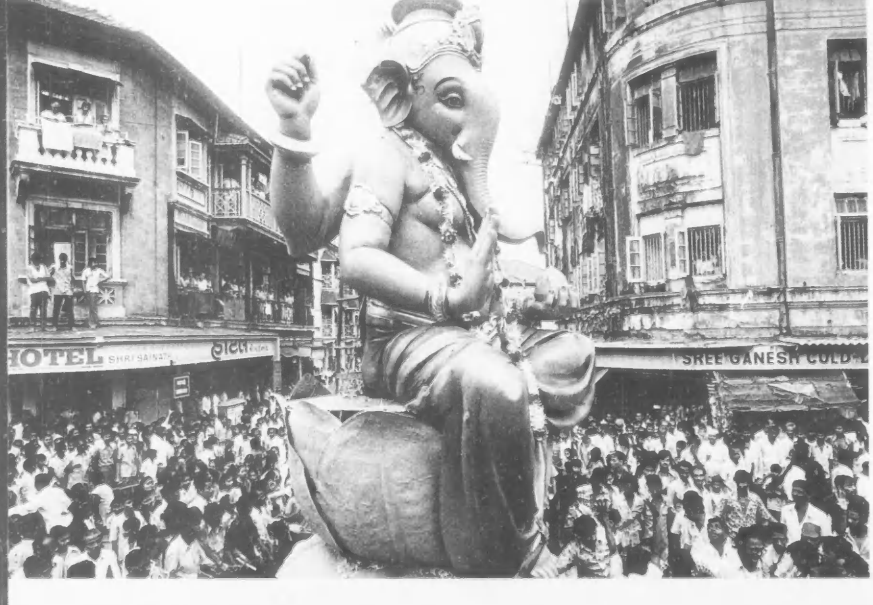


The Hindu festival of *Holi* is linked to Lord Krishna, who is often shown throwing colour on Radha, his beloved. This 18th-century miniature from Rajasthan depicts a typical *Holi* scene, with celebrants throwing coloured powder on each other.

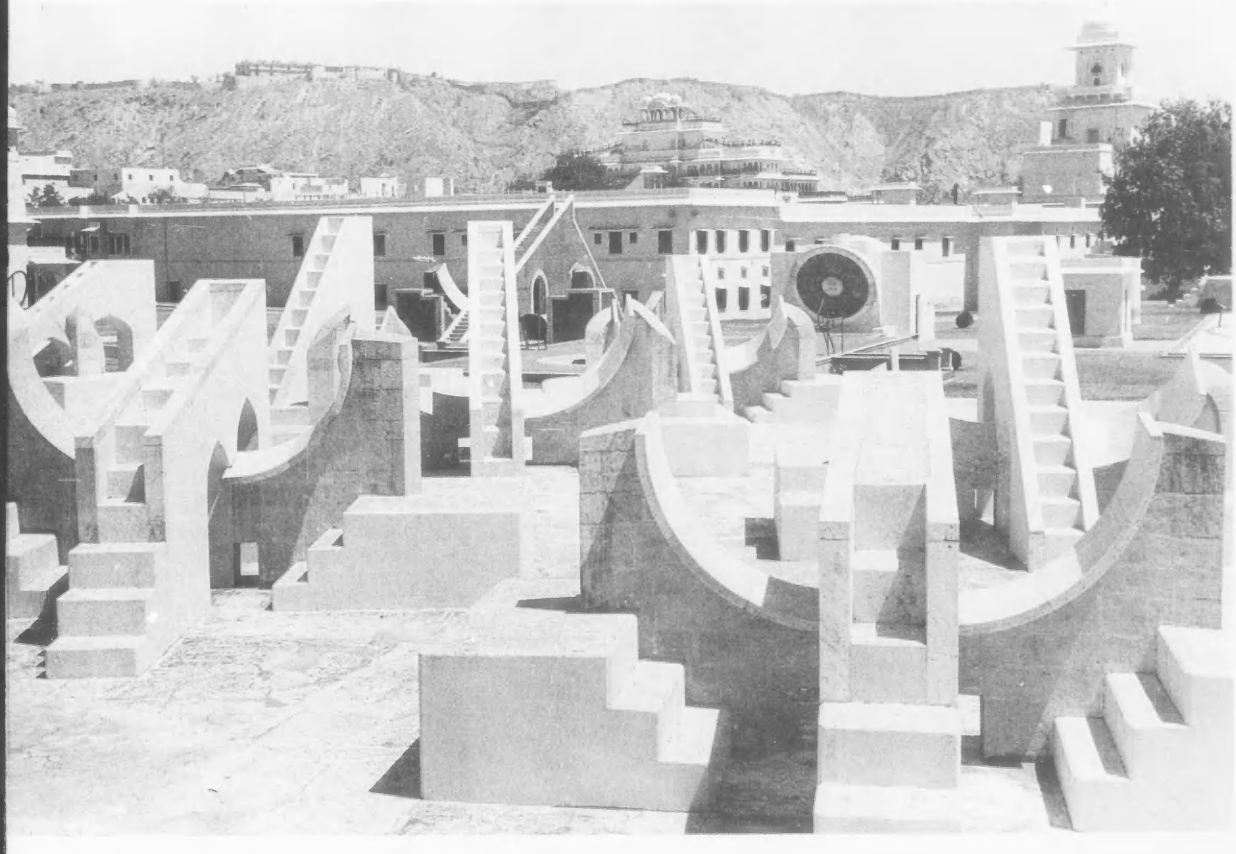
While *Diwali* is celebrated on a night of new moon, *Holi,* the festival of colour, begins on the night of the full moon in the month of *Phalgun* (March-April). Bonfires are kindled at street corners, symbolically cleansing the atmosphere of all that is evil. The following morning, people are on the streets, spurting coloured water over each other. Like the bacchanalia of ancient Greece, *Holi* is a folk festival at which inhibitions are shed, women come out of their seclusion, and caste barriers are set aside. At mid-day, the shouting, singing and colour-pelting all stop. Then, after a bath, people embrace each other and partake of sweets.

It is said that *Holi* was the favourite festival of the divine Krishna, the pastoral hero whose beauty enchanted all the cowherd girls of the village. On the day of *Holi,* Krishna danced with them—especially with his beloved Radha—and drenched them with coloured water. That is why even today *Holi* is celebrated with special joy and zest at Vrindavan, the home of Krishna. **V.S.N.**

A plaster statue of the elephant god Ganesh being carried in procession in Bombay before immersion in the Arabian Sea. The son of Lord Shiva, Ganesh is the remover of obstacles and the god of intelligence.



THE SCIENTIFIC LEGACY

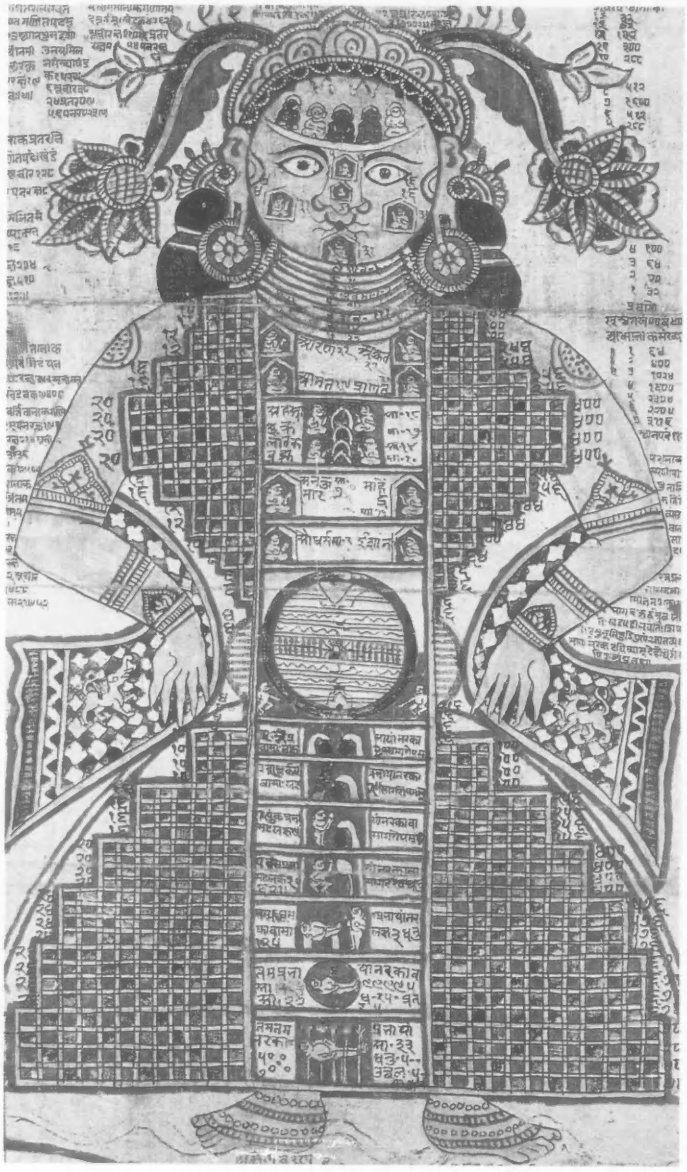


The Jantar Mantar astronomical observatory in Jaipur, Rajasthan. The observatory was built in the early 18th century by the astronomer king Sawai Jai Singh II.

IT has long been wrongly assumed that the idealistic—even mystical—predilections of Indian thought must have hindered the objective observation and study of Nature. But a metaphysics which asserts that only the Infinite Divine has absolute reality can also accept the relative reality of the material world seen from a practical, empirical perspective.

The Indian tradition assumes that everything in the universe is significant to some degree, and hence deserves careful study. In recent years India's contribution to the positive sciences, such as engineering, metallurgy, chemistry and above all mathematics, astronomy and medicine, has gained wide recognition. Some writers have indulged in uncritical glorification of "ancient wisdom", which is supposed to have anticipated the most advanced research of modern science. But a more balanced estimate is gradually emerging.

Indian mathematics go back to the Vedic age, when the construction of arenas for sacrificial ritual demanded accurate measurements. Pride of place in Indian mathematics goes to Aryabhatta (late fifth century AD) who elaborated the decimal system which had been devised by his predecessors. Other famous names are those of Brahmagupta, Mahavira and Bhaskara (of the seventh, ninth and twelfth centuries respectively). They understood the significance of positive and negative quantities, solved many complex equations, and evolved methods of extracting square roots and cube roots.



Trilokachakra, the great cosmic being, is shown in this 18th-century Tantric painting from Gujarat, northwest India.

They showed profound insight into the implications of zero *(shunya)* and of infinity. Bhaskara proved mathematically that infinity, however divided, remains infinite—a truth which had been accepted on the metaphysical plane as early as the 6th century BC in the Upanishads.

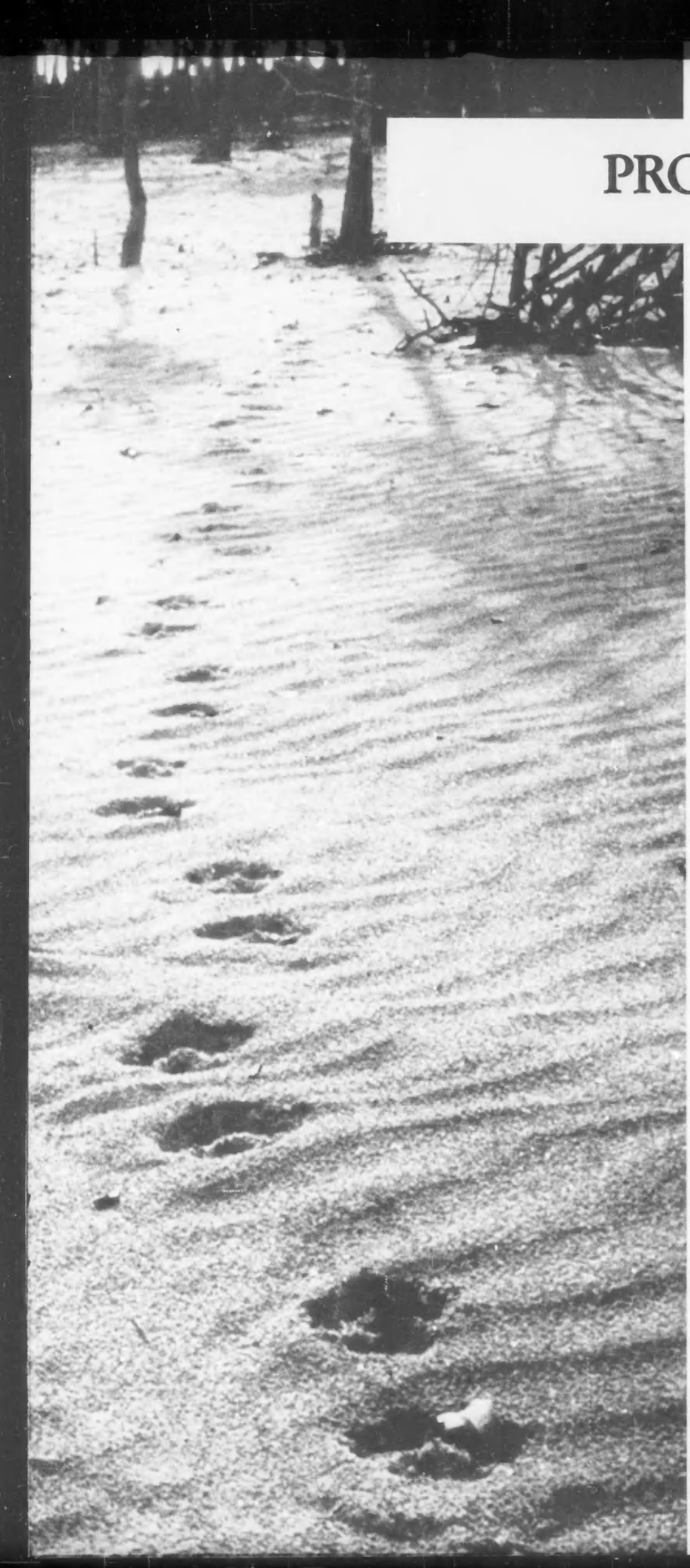
The Arabs are widely believed to have adopted from the Indians the decimal system using the zero, and passed it on to European scientists. India thus provided indirectly the mathematical foundation without which many important advances in Western science and technology would not have been possible.

In the field of astronomy, Aryabhatta again emerges as a revolutionary genius. He determined the length of the solar year as 365.3596805 days, which is remarkably close to the modern estimate. He asserted that the Earth rotates on its axis and revolves round the Sun, a view for which Galileo was persecuted by the Catholic Church a thousand years later. Another great astronomer was Varahamihira, a contemporary of Aryabhatta. He was thoroughly familiar with Greek and Roman astronomy, from which he adopted many features including the signs of the zodiac. Indian astronomers described the procession of equinoxes, forecast eclipses, and made amazingly accurate calculations of planetary movements without the aid of telescopes.

While astronomy and mathematics grew together, the progress of medicine involved considerable knowledge of chemistry and botany. The origin of *Ayurveda* ("Science of Longevity") goes back to the *Samaveda.* In the writings of Charaka and Sushruta (first and fourth centuries AD respectively) almost every aspect of diagnosis and treatment was discussed. The properties of herbs, seeds, minerals and salts were studied carefully; the importance of fresh air and water was stressed; a code of medical conduct was evolved; surgical instruments and techniques were developed. Yoga had an important therapeutic side and yielded valuable knowledge about respiration, the circulation of the blood and the nervous system, and about the physiological effects of emotional and mystical states.

Indian medicine is based on the concepts of *doshas* ("humours") and *gunas* ("ingredients of Nature"). The first involves the study of the three vital fluids—wind, gall and mucus—which must be balanced for good health. The second concept presupposes three basic *gunas: sattva, rajas* and *tamas,* associated with purity, passion and apathy respectively. For perfect health, *sattva* must dominate the other elements. The physician tries to ensure this by regulating diet, exercise and medication.

The doctor has always occupied a prestigious position in Indian society. A spiritual preceptor or *guru* was also looked upon as a healer. The idea of the sanctity of all life also encouraged the development of veterinary medicine. Many specialized treatises were written about the treatment of horses, elephants and other animals and birds. **V.S.N.**



PROJECT TIGER

BY RAHUL SINGH

A tiger in its natural habitat is one of Nature's most marvellous and unforgettable sights. Around 3 metres long and weighing about 230 kilos, the adult animal with its beautifully coloured coat of golden-orange and black stripes is swift, ferocious and powerful, yet languid and graceful in its movements. It is an unmatched hunting machine. No other animal arouses such fear, excitement and awe; no other animal is surrounded with such an air of mystery.

The tiger, which is afraid of no wild creature, has one mortal enemy—man, who can not only destroy this magnificent animal with guns, poison and traps but can also destroy its surroundings with axe and chain-saw.

Half a century ago, there were at least 60,000 tigers in Asia. In Indonesia, the last known tiger was killed just before the Second World War and the Caspian tiger followed it into oblivion three decades later. (Attempts are now being made to re-introduce the tiger to these areas.)

India has become the tiger's last major haunt in Asia, but here too the species has been devastated on a monumental scale. At the turn of the century there were 40,000 tigers in India. By 1972 there were just 2,000 left. For the maharajahs of India, with their lavish privy purses, tiger shooting was a status symbol. One maharajah proudly claimed to have shot 1,150 tigers during his lifetime. Bags of 500 were quite commonplace.

Tiger tracks in the sands of the Sundarbans, West Bengal. A vigorous conservation policy has given the tiger a new lease of life.

But even the abolition of the princely order did not improve matters. Poachers moved in for the valuable tiger skins, which two decades ago were worth $4,000 each. Meanwhile, India's population explosion from 450 million at independence in 1947 to over 800 million today meant that people moved inexorably into the tiger's habitat.

Miniature from Jaipur shows a tiger shoot.

Forests, particularly in the Terai region bordering India and Nepal, were cut down to provide land for foodcrops. Its cover and that of its prey destroyed, the tiger disappeared from many parts of India where it had earlier flourished in large numbers. In other areas tigers retreated further and further into such forests as were left, often killing domestic cattle in their desperate hunger. By the time alarm bells started to ring in the late 1960s, the tiger was on the verge of extinction in India.

The 1969 world congress of the International Union for the Conservation of Nature and Natural Resources (IUCN), held in New Delhi, signalled an important turning point. The IUCN put the tiger on its list of endangered species and called for a ban on tiger hunting worldwide, to which India quickly reacted by forbidding tiger-shoots. On 1 April 1973 an ambitious "Project Tiger" was officially launched by the Indian Government in Corbett National Park (Uttar Pradesh), named after the legendary British hunter turned conservationist, Jim Corbett. Eight tiger reserves were initially created as part of Project Tiger, to which the World Wildlife Fund donated $1 million.

According to Bittu Sehgal, the founder-editor of India's leading wildlife magazine, *Sanctuary*, the idea behind Project Tiger is basically very simple. "Each reserve is demarcated into a core zone and a buffer zone. In the core, no human activity other than forest protection is allowed; here Nature is allowed to administer itself. In the buffer, human activity is minimized, restricted to the exploitation of 'minor' forest produce such as grass, fruit, seeds, honey, and fallen wood. The logic is that the core area, left to its own devices, will quickly become super-productive and that this productivity will spill over to the buffer zone."

The results of the new strategy were extremely encouraging. Slowly but surely, the tiger started to make a comeback in India. At Corbett Park, there were only forty-four tigers left sixteen years ago; today there are nearly 100. At Ranthambhor, a forest once owned by the Maharajah of Jaipur and protected mainly for tiger hunting, the number of tigers remaining at the start of Project Tiger has increased from fourteen to forty.

Thanks to Project Tiger, the tiger has even made a remarkable recovery in the Sundarbans, the 10,000-square-kilometre delta partly in Bangladesh and partly in India, where the Ganges, the Brahmaputra and the Meghna flow into the Bay of Bengal. Here, in one of the world's largest tracts of mangroves, an area where the ecosystem was seriously threatened, more and more woodcutters, fishermen and honey-gatherers were being attacked by tigers, who in the process of evolution have become excellent swimmers and whose diet now includes fish.

In 1973 Project Tiger was launched over an area of 2,500 square kilometres of the Sundarbans. At first, the authorities tried to exclude people entirely from the core reserve, but this proved impractical, and fishermen and honey-gatherers continued to go there despite the risks. So, in 1981, a new strategy was devised. Electrified human dummies were placed at selected points in order to condition the tigers to fear man. When the dummies were attacked by the tigers, the latter received a shock powerful enough to cause them pain.

The ploy seems to have worked. Since then, the number of people killed by the tigers has dropped considerably. At the same time, since the inner core has been protected, honey collection and fish harvesting have increased by 300 per cent in fifteen years.

As Sehgal says, Project Tiger is concerned not only with saving the tiger but with ecology, the environment, and "saving mankind itself". Today, the number of tigers in India has risen to 4,000 and, in the process, other creatures which were on the verge of extinction in India, such as the elephant, the stag, the one-horned rhino and the wild buffalo, have been given a new lease of life.

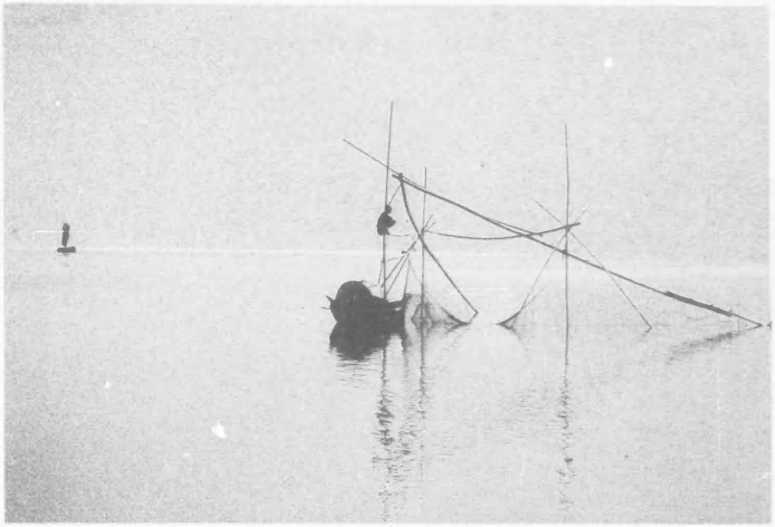
Above all, the Indian public is now far more aware of how man's future on this planet is closely linked with Nature. Deforestation has certainly threatened the tiger, but it has also been a cause of the floods that recently ravaged much of north and eastern India. The connection would not have been made twenty years ago, but it is being made now. That is a step in the right direction.

RAHUL SINGH is editor-in-chief of *The Sunday Observer*, India's largest Sunday newspaper, published in Bombay and Delhi.

ANGER OF THE SEA-GODDESS

BY THAKAZHI S. PILLAI

In its 14 major languages and several hundred other languages or dialects, modern India has many thriving literatures. One of them is that of Malayalam, the official language of Kerala State in southwestern India. The leading living novelist in Malayalam is Thakazhi Sivasankara Pillai (born 1914), whose most famous novel, Chemmeen, *has been translated into all the main languages of India, where it became a phenomenal best-seller, and into many other languages as well.* Chemmeen *tells the story of the relationship between Karuthamma, the daughter of a Hindu fisherman, and Pareekutti, the son of a Muslim fish wholesaler. We publish below an extract from the final pages of Pillai's novel. It opens as Karuthamma and Pareekutti meet on the seashore while Karuthamma's husband, Palani the fisherman, is out at sea. The events described are inspired by the belief of the Hindu people that Karuthamma's defiant behaviour will anger the sea-goddess Kadalamma. The extract has been taken from an English translation of* Chemmeen *by Narayana Menon which has been included in the Unesco Collection of Representative Works (Gollancz publishers, London/Harper and Brothers, New York).*



WHEN Palani was away at sea, was it right that she should stand talking to a stranger? Karuthamma, however, was not afraid. She had met him before alone in the darkness of night. If she could give a man whose life she had crushed at least a moment's happiness, shouldn't she grant it?

They stood face to face looking at each other. The man that she had ruined stood before her. She knew for certain that he would love her forever. He would always understand her and forgive her. She could do anything to him. He would put up with anything from her.

In those few seconds Karuthamma forgot all the sorrows of her life. She felt she had not been vanquished. She had the strength few had. She was under the protection of a strong man, life was secure. Palani would see to it that the world outside wouldn't dare touch her or hurt her. And she also had something else which gave her spirit sustenance. A man loved her as no man had loved a woman. Between these two, her life was full. Now the man who loved her stood in front of her.

She entered his extended arms and her body became one with his. Their faces met. He whispered in her ears.

"My Karuthamma"

"Yes!"

He stroked her all over and his hands slowly moved to where he and the rude young boatmen of the seafront used to stare.

"Karuthamma"

Again she answered him obediently in that semiconscious state of ecstasy.

"Yes—"

"What am I to you?"

She took his face in both her hands and looking at him with half-closed eyes, she said, "Everything. My pot of gold".

Again they became one. And in that state he whispered gently in her ears.

She could not break herself away from that embrace.

Far out at sea Palani baited a shark, a really big shark. Until that day so huge a shark had never swallowed any bait of his or of anyone else's. No fisherman had ever caught as big a fish in that sea.

The moment it was baited, the shark struck hard. The sea churned and the water splashed upward into the sky. Then it came charging up. Palani saw it come above the water. He could see the line coming out of its mouth.

Palani realized that he had caught the biggest fish of that seacoast. He shouted forth his happiness at the catch. He must make a quick decision. Should he hold fast to the line and stop the fish or should he let it go for some time? If the bait had gone right into its throat, one pull of the line would be sufficient to stop that dangerous beast. But it might charge at the boat and smash it. But if he let it go, the boat would speed after it. And it was difficult to say how far the boat would be dragged along with it.

Palani couldn't see the shore. He had no idea in which direction the coast lay. He held the line with one hand and with the other guided the boat, and looked toward the sky to find his bearing by the stars. He couldn't find the star he looked for. Stray clouds had covered the sky. The boat was being drawn along at an unimaginable speed. It furrowed through the water. There were no waves. The sea was calm. But the sea had darkened and assumed an ominous character. He looked carefully at the water to find the direction of the current. But he couldn't judge it, however hard he tried.

The shark was pulling the boat with the speed of wind. Where was it going? How far had he gone?

Palani cried out.

"Stop, stop there. Stop before you drag me to the palace of the sea goddess".

He pulled hard at the line. Suddenly the boat stopped. Then Palani laughed wildly.

"Ha ha ha—stop there like that".

A short distance away from the boat the fish was charging in its death throes. Once more Palani, excited, pulled the line. The fish jumped up and fell into the sea again. Though the boat seemed motionless, Palani realized that it had been caught up in a current and was drawing a pattern on the expansive sea.

The current was going round and round in circles. Again Palani watched it carefully. Was he caught in a whirlpool? He was sure now that he was going round in a wide circle. But he held the line firmly. Palani looked up at the sky. There wasn't a single star to be seen.

He stood in his boat and looked all round him. He could only see the sea round him. But now the water was assuming a different contour. Now it seemed that all around him was a mountain, a circular mountain of water. He and his boat were in a depression. The head of the boat seemed to rise.

The palace of the goddess of the sea was at the bottom of the deep sea. There the sea goddess was enshrined. Palani had heard descriptions of that palace. He had to get there through a whirlpool, a whirlpool which made the whole sea churn round in circles, knocking at the gates of the sea goddess' abode. Palani thought that the mountains encircling him were getting taller and taller. He loosened the line a little. Again the boat speeded forward.

From somewhere Palani heard a terrifying roar. He had never heard a noise like that. It was a storm rising.

The waves rose as high as a mountain. Close on one after the other the waves rose. Palani had never seen the like of such waves. Those waves were not moving in lines. They were rising all round him in a circle, the two ends joining and making a pattern. Palani looked round him and studied in a moment the nature of that spectacular angry sea. He knew how to ride his boat over the waves. And he knew too how to join forces with a storm. He had sailed a boat on the darkest of dark nights.

There was a bright flash of lightning, followed by terrifying thunder. Palani let loose the line. If he held fast the line and the boat stopped, the boat would be smashed. He let the fish pull the boat as it liked.

When the head of the boat mounted the crest of the high waves, he balanced himself with the aid of his oar and jumped upward so as to lighten the weight of the boat. When he reached the top, the boat again suddenly came down. The boat became almost vertical. Then there was another huge wave ready to swallow up the boat with its gaping mouth.

The sea roared. It roared with its anger against that poor fisherman. The storm provided a drone for that roar. The thunder provided the rhythm. What a terrible devilish dance it was. A minute human being. Should the goddess of the sea unleash such a fury to smash him? How quickly could she drag him to her depths if she wanted.

Perhaps these huge waves were making their way to the shore. Perhaps they were riding over the houses on the beach. Perhaps poisonous sea snakes were crawling over the beach. In the distance something rose very high. Was it the crest of some spectacular high wave, or was it some sea monster raising his head with gaping mouth like a cave? Was it that poor fisherman's spirit being broken? Palani tried to jump over the wave. But he couldn't rise high. That huge gaping wave went right over him and his boat.

Not only had the clouds covered the sky with thunder and lightning, the very sky seemed to split. All the water in the sea seemed to have gathered in one spot. The storm roared as if it was going to smash all. Yet the head of the boat could be seen over the crest of still another wave. When that had passed, Palani was clinging to the boat, now turned upside down. In a second he found his breath and shouted.

"Karuthamma!"

Palani's cry rose above the roar of the storm.

Why did he cry out for Karuthamma? The guardian angel of the fisherman at sea is his wife at home. He was begging her to pray for his safety. Didn't the first fisherman come safely home in spite of the storm because of the power of a fisherwoman's prayer? Palani, too, believed he could be saved. He had a wife. She would pray for him. Hadn't she given him her word even the night before?

The fury of the storm increased. Palani fought it. But it joined forces with the waves. Another huge wave came rolling. By the time he could say "Karu—" the wave had rolled on.

There was nothing to be seen. The storm and the thunder and the lightning joined together in the destruction.

The water churned devilishly and blew up to the skies.

The whole sea became a kind of cave. The storm became an entity. The boat reappeared on top of the waves. Palani was lying on top of it. He was clinging to it.

Wouldn't that merciless slaughter ever end?

The boat then got caught up in a whirlpool and sank like a stone.

One single star came out and shone. It was the fisherman's Arundhati*, the star which showed them their way, but that night the star seemed to lack in lustre.

The next morning day dawned on the calm sea as if nothing had happened. Some of the fishermen said that there had been a great storm in mid-ocean during the night. The waves came right up to the front of some of the houses. And there were sea snakes to be seen on the white sands. Panchami stood on the seashore, the tears running down her cheeks. The baby in her arms was crying bitterly for her father and mother. Palani, who had gone out fishing the evening before, had not come home. Karuthamma was not to be seen.

Panchami wept and as she wept she tried to comfort the baby.

Two days later the bodies of a man and woman locked in embrace were washed on the shore. They were the bodies of Pareekutti and Karuthamma.

And at the Cheriyazhikkil seafront a dead shark that had been baited was also cast on the shore. ■

* *Arundhati was the symbol of chastity.*

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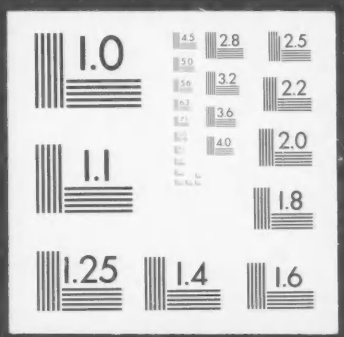
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